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APPLIED CONCEPTS FOR FACILITATING A LEARNING COMMUNITY

by

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The undersigned certify that they have read, and recommend to the faculty of Graduate Studies and Research for acceptance, a thesis entitled " Applied Concepts for Facilitating a Learning Community" submitted by Conrad Braun in partial fulfillment of the requirements for the degree of Master of Education in Adult and Higher Education.

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DEDICATION

This thesis is dedicated to the glory of God, the source of all life, hope, compassion and wisdom; and to my loving wife Susan and our children Mary and Mark who sacrificed much so that this work could be completed. May the development of learning communities result in a better world for them and for generations to come.

ABSTRACT

The purpose of this study was to determine what the applied concepts are that are needed to facilitate a learning community. In addition, an order of priority for the implementation of the applied concepts was established. The perceived needs for the applied concepts to be implemented in the workplaces of the respondents, based on the demographic segments of the surveyed population of age, gender and workplace type were found. Finally, the perceived state of readiness of the workplaces of the participants for implementing the applied concepts was determined.

A summary of the literature on learning communities resulted in the formation of a list of 54 applied concepts divided into nine theme areas. A survey instrument was developed and sent to leaders in for-profit, not-for-profit and public education workplaces who were responsible for learning and professional development. a total of 120 surveys were mailed. Ninety-four were returned for a response rate of 78%.

It was found that all of the applied concepts were perceived to be needed by a majority of the respondents. The order of priority clearly demonstrated that no one theme area was considered more important, but that individual applied concepts from various themes were ranked distinct from others. The middle age group, consisting of participants aged 42 to 49 inclusive, was the most resistant to the applied concepts. The

youngest age group, under 42 years of age, was the most receptive and the oldest age group, over 49 years of age was second in terms of receptivity. Females across all themes perceived the need for the applied concepts more than did males. Public education workplace leaders emphasized leadership as a theme, while for-profit and not-for-profit workplace leaders emphasized planning and strategies. With respect to the state of readiness of the workplace for implementing the applied concepts, the higher the perceived state of readiness of the workplace, the higher the perceived need was for the applied concepts to be implemented. This was indicated by the data received from the participants regarding the extent to which they perceived their workplace to be ready to implement the applied concepts compared with the perceived needs for the applied concepts returned by each participant.

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CHAPTER 1

THE RESEARCH PROBLEM

Introduction

During the past decade, considerable interest has been generated in the phenomenon of the learning organization. Senge (1990), articulates the view that the majority of the obstacles to organizational transformation are attributable to deep rooted, organization-wide learning disabilities. He goes on to say that these learning disabilities can be overcome by continuous growth in the use of five disciplines: systems thinking, personal mastery, mental models, shared visioning and team learning. Employing these disciplines in unison in a persistent manner results in a very different environment from that of the typical present day organization. It is characterized by an atmosphere of trust, respect, openness and synergy. Its members participate fully in all areas of decision making, are free to risk and are continually learning, visioning and growing as individuals and teams. The net outcome of these and other indicators induced by the practice of the disciplines is what Senge calls the "learning organization". He defines it as "an organization that is continually expanding its capacity to create its own future" (p.14). Thus, not only are learning disabilities overcome, but the entity as a whole is enabled in such a way as to renew itself on an ongoing basis.

Some discrepancy exists in the literature regarding the use of the term "organization" when alluding to a high functioning group

that displays numerous desirable traits for achieving continuous success. In Senge, Kleiner, Roberts, Ross & Smith (1994), considerable emphasis is placed on the need for a climate of community for the purpose of developing closer relationships to the point of intimacy in communication. Such a milieu is very warm, accepting and informal and provides the context for the qualities to arise that are peculiar to the learning organization. Peck (1987, 1993), adds considerable impetus to the idea of community building as a means of empowering individuals and groups to learn and accomplish tasks more effectively and efficiently. He calls for inclusivity, authentic communication and decentralization of authority to be features of the formation process. Furthermore, Senge, Kleiner, Roberts, Ross & Smith (1994), Watkins & Marsick (1993), The High Success Network (1993), and others extend their discussions on the learning organization to reach beyond the bounds of organizations as separate, isolated assemblies; into the realm of close connectivity and interdependence with external concerns. Nirenberg (1993), in his discourse on communities in the workplace, stresses that both the nature of working relationships as well as the involvement in networking are essential ingredients for a thriving concern. Clearly, there is a move in the direction of recognition of these two sets of considerations in the representation of the emerging dynamic under scrutiny here. Thus, the phrase "learning community" was the designation adopted for this study.

Whatever the label, the challenge faced by all enthusiastic parties lies in the determination of how to arrive at this compelling

state of being. To facilitate implementation, Senge, Kleiner, Roberts, Ross & Smith (1994), and Senge (1990), describe in detail what each discipline entails and submit examples of attempts at their application. They further provide aides to understanding them in the form of essences, various types of principles and guiding ideas as well as an array of tools for practicing to achieve mastery. While these writers focus largely on the development of expertise in the use of the disciplines, others concentrate on a host of associated issues and contribute an assortment of perspectives regarding the formation of learning communities. Kline & Saunders (1993), list sixteen principles that define attitudes and behaviors that give rise to the circumstances necessary for a learning community to develop. They also outline a progression of ten steps that can be employed to move a concern forward. A formula, a series of tools to assist learners in improving their learning skills, a characteristic evaluation chart and ten learning lessons are among the means by which Wick & Leon (1993), recommend that learning communities evolve. Case studies of the progress made by five prominent corporations are presented by them to reinforce their approach. Watkins & Marsick (1993), apply the metaphor of sculpting to depict the manner in which learning communities can emerge. They base their discussions on the application of six action imperatives that form a nucleus for change.

The list of designs for creating learning communities is extensive. Included in the diverse schemes are steps, characteristics, values, principles, rules, practices and strategies proffered as tools

and techniques for application and assessment. This makes it very difficult for organizations to embark on a developmental path to becoming a learning community in a systematic, holistic manner. The researcher could find no comprehensive framework that ties together the directive elements from multiple sources that address a full spectrum of learning community realities. Such an all encompassing guide could serve as a powerful aide to fledgling learning communities of all descriptions.

One hopeful starting point for the establishment of a comprehensive framework is the existence of common themes in the literature that have the potential to act as categories into which directive elements could be organized. Nine such themes emerge that appear to be consistent (see Chapter 2): Shared Meaning, Needs Fulfillment, Planning and Strategies, Processes, Structures, Learning, Leadership, Community Building and Resources. These represent the critical aspects of organizational functioning that must be addressed to implement any kind of a lasting, effective change. This approach is easy to understand and it is a very practical way of looking at organizations when considering alternative directions.

The development of a fully comprehensive framework of directive elements would be too great an undertaking for a single research thrust. However, a significant initial phase could reasonably be effected that would begin the process of evolution necessary to eventually accomplish that end. This would involve establishing a limited, initial list of directive elements, organized into theme areas in order of priority that could then be tested and modified or

expanded as needed. In order to take that first step, some clarification is necessary around what constitutes a directive element.

The American Association for Vocational Instructional Materials (AAVIM) (1977), provides a useful discussion on concepts and principles that can be adopted to fulfill the requirements for the elements for a framework. They consider a concept to be an idea related by experience to one or more referent items. The items can be concrete (a rock) or abstract as in a process (a conversation), a quality (a temperature) or relationship (a partner). When a concept involves a relationship it links two or more other concepts together. A principle is declared when a relationship concept is consistent enough to be predictable. Since the learning community has no full blown examples from which to draw for predictability (Senge, Kleiner, Roberts, Ross & Smith, 1994; and Peck, 1993), the word concept as defined by the AAVIM (1977), was used as part of the composite for the elements of the framework essential to this study. In order that the concepts take on the desired directive form, they were presented as action statements similar to those of the fourteen points in Demming's total quality management method (Jablonski, 1992; and Walton, 1986). As such, the directive elements were referred to as applied concepts in this research.

This investigation involved the extraction and organization into themes of the most frequently occurring applied concepts in the literature on learning communities. It sought to have the need for those applied concepts reinforced and to have them ranked for level

of importance to provide a foundation for the development of a comprehensive framework for the facilitation of learning communities.

With that background established, the statement of the problem for this investigation was articulated. The purpose of this study was to determine what the applied concepts are that are needed to facilitate a learning community.

Research Question

This study was guided by the following question: What are the applied concepts that are needed to facilitate a learning community?

Sub-Questions

These supporting questions assisted in answering the main research question:

1. Do learning leaders in Edmonton perceive the applied concepts extracted from the literature to be needed to facilitate a learning community in their workplace?

2. What is the order of priority: (a) of the applied concepts, and (b) the themes into which the applied concepts are organized?

3. Are there any differences in the perceptions of learning leaders regarding Sub-Questions #1 and #2, based on gender, age, workplace setting or the state of readiness of their workplace for implementing needed applied concepts?

Definition of Terms

The following terms are used consistently in this work. They are therefore defined to clarify their meaning.

Applied Concepts; directives in the form of action statements that are needed to facilitate learning communities. They are abstract relationship ideas (AAVIM, 1977), that underlie the dynamic and articulate what must be done to induce and sustain it. They may address one or more aspects of the learning community reality.

Comprehensive Framework; a generic skeleton outline of applied concepts organized into themes that is representative of critical aspects of the learning community and that acts as a basic foundation for the implementation of the learning community.

Learning Leader: a person in an organization who's role it is to facilitate learning and manage human resources. Selected learning leaders, identified on the basis of predetermined criteria established the need for the applied concepts extracted from the literature.

Learning Community: an organization that is continually expanding its capacity to create its own future (Senge, 1990, p.14). Peck (1993), states that an organization must be consciously motivated and ethical in submission to a Higher Power in order to become a learning community.

Order of Priority; the determination of the relative order of importance of the applied concepts and themes of the learning community for the purpose of establishing an implementation strategy (Senge, Kleiner, Roberts, Ross & Smith, 1994).

Themes; are categories of applied concepts that represent one of the key aspects of learning community reality.

Limitations

This study was limited in the following ways:

1. Only two types of learning leaders and a limited number of organizations were represented in this study. This restricted the generic application of the returns until additional investigations can be conducted.

2. The study dealt only with applied concepts as general directives for the facilitation of a learning community, not with the specifics of how to implement them.

Delimitations

These delimitations established the bounds to which this research was held:

1. Only learning leaders in the Edmonton, Alberta area participated in this research.

2. The applied concepts that were established as being needed to facilitate a learning community in this study, apply solely to learning community facilitation and not to any other form of change or improvement methods or interventions such as total quality management or reengineering.

Assumptions

The following assumption was made in conjunction with this work:

1. Participants in this research projected from experiential backgrounds with various change initiatives to a visionary, cognitive

understanding of which applied concepts facilitate a learning community. Their expertise was considered to be appropriate for this study.

Significance of the Research

Any organization desirous of improving its operation and future determination, currently has at its disposal a myriad of fragmented and limited strategies from which to choose to realize that goal. However, the cost involved in terms of time and energy resources to implement one or more of these change efforts is prohibitive for most concerns and institutions. In addition, the frustration and disappointment of continued failures to realize promised results can often turn even the wealthiest, most optimistic organizations cynical and fiercely resistant to change management approaches. Creating a list of needed applied concepts can lead to the formation of a generic, integrative scheme that can be applied in an adaptive manner to meet the specific needs of each organization. The implementation could be effected largely from within, limiting undesirable impacts and excessive costs. The potential benefits to each organization would include new and improved skills, competencies, awarenesses and methods, as well as heightened, synergistic functioning.

Outline of the Thesis Structure

The opening chapter of this study asserts the foundation upon which the research question and supporting questions were based. It clarifies the limitations, delimitations and assumptions and defines any important terms associated with the work.

In the second chapter, a literature review is made of the evolution of the learning community through organization development, organizational learning and other change interventions that have evolved over the past few decades. The importance of these developments to meeting the needs of the times is explained. Finally, an overview of the major contributors to the thinking and practice of learning community building is given, with the intention of demonstrating the scope and complexity of the large number of aids to implementation that currently exist.

Chapter Three details the methods used for gathering data pertaining to the research objectives, in particular, the design of the instrument that was used for that purpose.

The summary, analysis and conclusions drawn from the information gathered are presented in Chapter Four.

Finally, recommendations for the application of insights gained and suggestions for further research are made in Chapter Five.

CHAPTER 2

REVIEW OF THE LITERATURE

Accelerating Change and Paradigm Shifts

During the past twenty to thirty years, mounting pressures from such phenomena as exploding population growth, massive technological innovation and severe environmental crises have triggered unprecedented levels of change on a world wide scale. These changes have given birth to a vastly different set of global realities (Hair, 1994; Burrus, 1993; Tapscott & Caston, 1993; and Erlich & Erlich, 1991). The new realities include: a more open and volatile world economic and political order; greater access to markets and tougher competition; flattening organizational structures and the implementation of more efficient and effective work processes; the ever increasing number of applications of high technologies; and the necessity and demand for continuous, renewable interaction with the environment (Ottman, 1994; Burrus, 1993; Hawken, 1993; and Tapscott & Caston, 1993).

The net result of the pervasion of these new realities is twofold. On the one hand, many exciting opportunities and possibilities have surfaced that offer great hope for the future in terms of quality of life enhancement in such areas as medicine, recreation, work and workplace design, lifestyle and improved participation in democracy. However, these very powerful arenas of aspiration are tempered by an array of challenges beginning with a number of colossal threats to

our survival as a species (Erlich & Erlich, 1991). Increasing poverty, global warming, resource depletion, the extinction of species, and the pollution of the environment are contributing factors leading to irreversible destruction of life sustaining systems (Hair, 1994). From a regional perspective, we face the problems involved in meeting the basic needs of many people in some locations and higher needs of growing numbers in other areas. Arms build ups and conflicts are further concerns that must be continually addressed in this desultory climate. At the national and local levels, attention must be given as to how to achieve a balance between maintaining decent living standards in the face of fierce competition and establishing a relationship of renewability with our natural habitats (Erlich & Erlich, 1991; and Suzuki, 1989).

Such a combination of opportunities and challenges depicts a scenario that requires immense, comprehensive interventions at all levels to effect innovative responses. Past remedies focused on implementing partial, incremental changes to adapt in a reactive fashion to external stimuli or to utilize new awarenesses for limited competitive advantage. French & Bell (1995), refer to these remedies collectively as "organization development" (p. 1). The first generation methods that they discuss include T-groups and applications of laboratory training insights, survey feedback technology, action research, and sociotechnical and socioclinical approaches. The T-groups were informal small group sessions that were used by participants to study their behaviors in order to improve their personal functioning. This technique evolved into a

process by which group and intergroup dynamics were created in laboratory-like simulations to solve problems such as ineffective conflict management. The solutions to these problems were then implemented in the workplace. Survey research came into play as a way of measuring trends, forces and characteristics at work within organizations. Data gathered was considered in the design of improvement strategies. The action research stream involves the participation of the people being researched as an integral part of the full cycle of problem determination, data gathering and analysis, as well as the planning and action phases. Psychotherapy developments made up the final strand. They evolved from first world war neurosis treatment and lead to a deeper understanding of the domains of feelings and relationships, and to work redesigns using semiautonomous teams. The thinking, devices and tactics that have circulated as a result of the four first generation themes persist today embedded in mature, sophisticated frameworks touted as instruments for change. Volumes such as that by Stokes (1991), and Oleson (1993), provide information and techniques for dealing with emotional and psychological issues, effecting structural and procedural alterations, introducing technological upgrades and overcoming resistances. While these designs may once have been somewhat applicable, in the face of current contexts, a considerable gap exists relative to suitability. The accelerating pace of change and the scope and magnitude of its impacts renders past strategies obsolete. Completely unique perspectives are required, consisting of breakthrough visioning, thinking and learning models and quantum

leaps in approaches to planning, relating, producing and the realization of objectives (Drucker, 1992, 1993; Osborne & Gaebler, 1992; and Peters, 1992). Substantive transformations in these and other areas are referred to as paradigm shifts and are indispensable in coming to terms with the turbulences and intricacies characteristic of our times (Barker, 1992; and Kuhn, 1962). The current ongoing quest is for the determination of the nature of the shifts to undergo, and the means to elucidate and internalize them in the fulfillment of organizational purposes.

Ingredients for Higher Functioning

A number of sources identify the paradigm shifts required for organizational success today. Tapscott & Caston (1993), outline the upheavals that are transpiring in the emerging new enterprise. Structurally, there is a move from a hierarchical, closed entity to a networked, open one. The resource focus is now directed at human and information development as contrasted with material capital acquisitions. Motivation is now facilitated through empowerment and commitment to achieve team goals rather than through control and reward and punishment mechanisms, or the following of orders. Rewards are increasingly based on accomplishments where hierarchical position was once the sole determining factor. The environment is becoming much more dynamic with the key player now being the professional working in self managed, cross boundary teams instead of a manager directing operations. The relationship base is cooperative verses competitive with the employees

experiencing a new sense of ownership that is replacing past isolation. More broader competencies are needed in order to function where specific skills were once more highly regarded. Finally, facilitative leadership is replacing the practice of sound management. The writers go on to say that no one corporation or institution has applied all of these changes, but that they were generated from the samples surveyed. They also point out that there is no guide book to follow to arrive at these shifts.

Further adaptations are pointed out by Burrus (1993). The first is that a much higher value is being placed on time as a commodity. Price is being overlooked in favor of speed of delivery, and free personal time is taking precedent over material wealth. In terms of products and services, customization or tailoring is in vogue where mass produced clones were the typical accepted order of the day. The accessibility and application of information and technology is replacing the focus on amounts of information and capacities of technology. Seeking solutions to problems is eroding the past practice of assigning blame. Lastly, a global sense of interdependence is succeeding the pervasive independent posture that has been so prevalent in the post world war decades.

The aforementioned alterations call for a host of perceptions, competencies, roles and dynamics to be heightened or developed and infused into the workplace. A report by the Secretary's Commission on Achieving Necessary Skills (SCANS) (1991), lists and describes the student outcomes that the workplace now requires that the schools facilitate. The report was the result of twelve months of interviews

done with employees throughout the country. The skills are divided into three areas: basic skills, thinking skills and personal qualities. The basic skills include reading, writing, speaking, listening and performing mathematical computations. Creative thinking, problem solving, decision making, visualizing, learning how to learn, and reasoning are the thinking skills required. The necessary personal qualities identified as essential are responsibility, self esteem, sociability, self management and honesty. Five competencies are recorded in the report as crucial to meeting current needs: the ability to work with a variety of technologies, the capacity to understand complex systems, the ability to locate and apply information, the ability to relate well with others, and the ability to manage resources effectively. The SCANS report goes on to describe the critical changes that must occur in the classroom for these outcomes to transpire (1991). With knowledge accumulating at a horrendous pace, it is no longer feasible for teachers to have all the answers to questions that are asked. Multiple solutions may be viable to many problems and the teacher may not have them in advance. This changes the whole learning relationship from one where the teacher imparts all of the information to the students who then absorb it individually, to a relationship in which all participants are co-learners and work together at all phases of the process. This includes the planning and design of activities and assessments and the involvement in fulfilling them. Soliciting assistance from outside of the classroom to engage students in real life issues shifts the organizational structure from a simple to a complex one. The integration of subject disciplines to

effect relevant problem solving, and the move from a theoretical to an applied, reasoning approach to thinking skills development are also essential changes. The inclusion of listening and speaking components calls for a new emphasis and a very different design of learning experiences. Student behaviors must reflect ownership and responsibility for their learning and their learning environment. This calls for a significant adjustment in the role of the teacher to move towards empowering students through self esteem building, motivation, sharing responsibility and communicating high expectations to them at their developmentally appropriate levels. For people currently in the workplace, some means must be derived for them to acquire necessary qualities and competencies in and through an environment mirroring that of the formal school setting described.

Several consultants from The High Success Network (1993), provide further insights into the shifting paradigms of our day. However, it is stressed in their writings that the impacts of the changes occurring today and the paradigm shifts necessary to manage them affect every sphere or dimension of our lives, not solely the work world. They list seven spheres of living: personal wellness and fulfillment, life long learning, environmental reliance, civic and global interdependence, work and resource management, and cultural and leisure pursuits. These are all encompassing in terms of their reach into the social, economic, cultural, political, technical and environmental areas of human existence. The authors go on to identify eight roles that all people must be able to apply to

each sphere of living: listeners and communicators, learners and thinkers, team members and partners, teachers and mentors, creators and producers, problem finders and solvers, users and performers, and leaders and organizers. The writers insist that to meet the current needs, the education system paradigm must shift from a time based to an outcome, performance based system that ensures that appropriate outcomes are met such that these roles can be carried out by all who exit the system. The model calls for expanded opportunity for continuous improvement until criteria are met rather than a single pass or fail assessment. Experiential learning involving real life problems and contexts and integrative subject matter is to take the place of segmented subjects. Students are to be assessed on the basis of performances, projects and portfolios, not percentage grades. The screening and sorting of students is to be discontinued in favor of individual education plans and other schemes that foster success for all. Cooperative learning is to replace competition and a synergistic environment throughout the education system is to be developed.

The above depictions have tremendous implications for learning of all types in all institutions. The examples from business, industry and the education system clearly demonstrate the parallels that exist in the shifts that must be made in all spheres of living. The vast mine fields of obstacles and incapacities that must be traversed to arrive at the state of being whereby these desired changes are in place are being challenged by a number of organizations in limited measure.

Substantive Interventions and their Shortcomings

Substantive interventions aimed at total organizational transformation are called second generation organization development approaches by French & Bell (1995). The most popular holistic initiative that has gained momentum in recent years is known as total quality management (TQM). Many accounts are available outlining the basic ideas intrinsic to the TQM method for change management (Walton, 1986; George, 1992; Jablonski, 1992; and Kossoff, 1992). A number of common points that are heavily emphasized include: a great deal of focus on the needs and wants of internal and external customers, continuous improvement of all phases and aspects of operation using measurement of results and benchmarking as guides, constancy of purpose with top management leadership and commitment, teamwork and participation at all levels, continuous training for new skill development, and the elimination of waste and sources of defects.

A second leading approach to change that has realized considerable advances in utilization is the program known as reengineering. Hammer & Champy (1993), the chief advocates of reengineering claim that its goal is to achieve breakthrough improvement in financial as well as quality and service areas very quickly. The main strategy employed by this system is the streamlining of processes throughout an operation with particular attention given to reducing the workforce and any inefficiencies present. Reengineering is a management led, top-down program that does not solicit widespread decision making or participation.

Senge, Kleiner, Roberts, Ross & Smith (1994), and Walton (1986), are critical of TQM as large percentages of the efforts to implement it fail miserably. Among the many reasons for this are: misinterpretations of the meaning of quality, participants expecting too much of the program and not committing themselves fully, inability to learn from feedback provided, compliance used as the driving force, lack of shared visioning, system thinking and appropriate leadership skills, and rigid boundaries within the organization. Hoffler, Moran & Nadler (1994), add the following to the list of TQM deficiencies: many efforts are not embraced by all personnel, a short term view is employed by the vast majority of implementers and often the program installation is limited to certain areas instead of adopting the all encompassing mode intended.

Reengineering also comes under fire as a widespread approach to change. French & Bell (1995), and Peters (1994), indicate that a lack of attention devoted to the human side of the equation in the reengineering process creates more of an obstacle over time. Mistrust and fear that are instilled in employees in the aftermath of huge layoffs, the lack of invitation to participate in change processes, and the lack of attempts to revitalize concerns instead of shrinking them, leads to diminished willingness to cooperate and greater hesitation to commit to further improvement. Although some temporary advantage is gained by eradicating some inefficiencies, the capacity of the organization to continually change in anticipation of new circumstances remains unaltered.

The Learning Organization Option

A significant number of change implementers such as executives, consultants, human resource personnel and front line leaders attribute the problems associated with various change interventions to a failure on the part of organizations to learn. This failure to learn is associated as much with a lack of ability to recognize, admit and correct mistakes as it is with the development of the capacity to adjust to new realities, to generate innovative ideas and to communicate effectively (Nonaka & Takeuchi, 1995; Redding & Catelanello, 1994; Senge, Kleiner, Roberts, Ross & Smith, 1994; Pinchot & Pinchot, 1993; Argyris, 1992, 1991; and Argyris & Schon, 1974).

Senge (1990), lists several learning disabilities that impede organizational transformation. Among them are: the tendency to limit the sphere of influence and activity of members to narrowly defined roles, the seeking out of human targets to assign blame for blunders or miscues, being productive in an ineffectual way by reacting to external stimuli with linear analysis, fixating on rapid occurring events rather than tuning in to slower moving tides, the lack of ability to see the effects that decisions and actions have, and a propensity for engaging in turf wars on one hand and watered down compromise solutions to avoid conflict on the other.

Senge (1991), proposes that the persistent practice of five learning disciplines dissolves the obstacles to organizational learning. Systems thinking is the discipline that is the key to the success of the synonymous application of all five. It involves the recognition of the

interconnectedness of various elements or components of systems that are engaged in some relationship or dynamic. This leads to appropriate interventions for problem solving. Challenging mental models is the discipline of surfacing one's assumptions about the world for testing, enhancement and renewal. The discipline of team learning employs dialogue and the awareness of those group interactions that impede learning to create a context in which participants can arrive at a shared understanding and amplified functioning. A fourth discipline, arriving at a shared vision, entails engaging all of the stakeholders in an organization in an ongoing process of determining what they seek to create together. The last of the five disciplines is personal mastery which calls for the pursuit of personal vision by each member of the organization and the tempering of that with an ever deepening understanding of current limiting and guiding realities.

Any organization that practices these five disciplines consistently and congruently evolves into a learning organization (Senge, 1990). Learning organizations are:

> . . . organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. (p. 3)

He adds that a learning organization is also "an organization that is continually expanding its capacity to create its own future" (p. 14). Such a high performing organization can manage change, develop healthy interdependent relationships, function with integrity,

establish and maintain competitive advantage, nurture a committed and innovative workforce and deal with difficult challenges. These outcomes have embedded within them the necessary skills, competencies, affects, roles and dynamics alluded to by SCANS (1991), and The High Success Network (1993). Several qualifying points place the idea of the learning organization in perspective in relation to present day conditions. To begin, no full blown examples of learning organizations exist as yet. All of the work that has been done to date is the result of observations and experiences with successful partial campaigns. Secondly, the learning organization is considered to be an ongoing quest for a dynamic state of being. This means that although a concern could at some point be considered a learning organization, it does not cease to evolve, even to the point of revisiting its own identity and evolving into a completely new type of entity. Finally, since the idea of the learning organization is so novel, many of the descriptions, attributes, and depictions of examples used are vague and general. This severely hampers the efforts of many thousands of people within countless numbers of organizations at creating learning organizations (Senge, Kleiner, Roberts, Ross and Smith, 1994).

Despite these concerns, there exist numerous aides to the implementation of the learning organization that complement and/or extend beyond the purview of the five disciplines.

Aides to Implementation

The diverse aides or tools and techniques for the implementation of the learning organization take the form of characteristics, principles, guiding ideas, essences, theories, values and methods. These aides assume several roles as they appear in the literature. In some selections, they provide greater insight into the nature of the five disciplines and how to practice them. In other works, one or more themes that are endemic to all learning organizations are addressed. These themes encompass the full spectrum of the features that are critical to functioning such as processes, structures, relationships and communications. The aides that are associated with the themes articulate the optimum conditions that facilitate organizational learning and the continuous unfolding and accomplishment of organizational goals and objectives. They further provide means by which such conditions can be created. A third set of reports contain aids that address a consolidated array of themes that act as a unified approach to implementation. Some of these unified approaches focus largely on learning themes, some on organizational arenas and the remaining majority present a balanced perspective. Many of the aides in the different contributions to the literature support both disciplines as well as themes and a significant percentage of works have aides that apply to several themes.

Mastering the Five Disciplines

Senge (1990), makes his thinking on the five disciplines explicit by characterizing each of them on three levels: essences, principles

and practices. The essences are the embodiments of the lessons of each discipline. They are states of consciousness and automatic functioning that occur as a result of internalizing the disciplines through prolonged application. The practices also pertain to each discipline and involve the use of tools, techniques and activities to achieve mastery. The terms principle and guiding idea are used interchangeably when applied directly to elaborate on the five disciplines. They are insights or underlying truths that aid in the definition and clarification of the substance of the disciplines. A second use of the word principle is found in connection with system archetypes which are systems thinking tools that help to solve problems that occur frequently in everyday organizational activities. Each of the archetypes has a management principle assigned as a form of corrective measure to prevent the problem from taking root in the operational processes. A third occasion in which the term principle is applied is in describing the ten operating principles which Hanover Insurance developed to aid in the discipline of mental models. These take the shape of rules or instructions to follow to achieve proficiency. Guidelines, that are also referred to as protocols are provided for assisting with the mental models principle of balancing inquiry with advocacy. These statements also read as rules or instructions (Senge, Kleiner, Roberts, Ross & Smith, 1994; and Senge, 1990).

Specific to personal mastery, Senge, Kleiner, Roberts, Ross & Smith (1994), explore several innovations in infrastructure and offer a number of directives related to the removal of barriers to the truth

in organizations. Personal mastery is further expounded upon by Fritz (1989). He provides supplementary details on the principles found in Senge (1990), and supplies additional principles which apply to personal mastery involving creativity, the creative process and personal visioning. Several premises are outlined and a set of stages of creation are described along with various types of choices and steps for making choices in the creative process. The author also includes a set of steps to aid in defining current reality. In a subsequent work, Fritz (1991), furnishes steps to creativity, principles on the topic of what matters most to the creator, roles in group creating and skills necessary for creating.

Supporting literature on mental models recommends that a number of practices be followed as a means of facilitating growth in the discipline (Stata, 1989; Wack, 1985a, 1985b; and Argyris, 1978). Berg (1993), lists a number of reframing directives that assist in the process of effecting transformations in thinking. Argyris (1993, 1990), details the steps to overcoming organizational defenses, the characteristics of a new theory-in-use, and the steps to learning a new theory-in-use which he claims to be appropriate for current needs. The author also includes a series of mind set activities that help to minimize organizational defenses and several additional principles for understanding and mastering the mental models discipline.

A further aid to implementation of systems thinking is provided by Kim (1994), in the form of tools. These fall into four categories and are used singly or in combination to achieve deeper insights into

complex systems. Wheatley (1994,1992), contributes principles to the systems thinking discussion that stem from chaos theory which in turn is founded on observations of natural phenomena. She contends that these principles are applicable to organizational management and dynamics. Weisbord & Janoff(1995), and Weisbord (1992), list principles, conditions and steps for shared visioning. Their particular driving engine for using that discipline is the search conference in which groups of up to sixty people from every area of an organization meet to establish a vision that is generated and owned by all concerned. Background development for this technology is derived in large measure from the work of Emery (1992). Other principles and conditions for shared visioning are enumerated by Parker (1990), in a narrative of an example of an organization that successfully employed the discipline.

The discipline of team learning requires that participants arrive at shared meaning through dialogue. Bohm & Edwards (1991), and Bohm (1990), articulate a series of guiding ideas for this process. Principles for action reflection group learning interventions that aid in problem solving are provided by O'Neil & Marsick (1994). Skills for team learning and a list of steps to personal readiness for team learning are outlined by Nirenberg (1993).

Learning Organization Themes

Whereas the five disciplines are useful for the progressive realization of the learning organization, a number of questions emanate from the related literature. For example, does the

assumption follow that if the five disciplines are practiced, the dynamic of the learning organization will automatically take form, or are there other disciplines to consider? Are the available background materials and directives relative to the five disciplines sufficiently thorough for the development of learning organizations, or are considerable further investigations required to complete the understanding of how to create them? Is the connection between the disciplines and the elements of the deep learning cycle and organizational architecture (Senge, Kleiner, Roberts, Ross & Smith, 1994), articulated well enough to provide an adequate map to follow in developing those areas? What are the conditions that best inspire and nurture the desire and willingness on the parts of organization members to aggressively work on the disciplines? How can these optimum conditions be put into place and in what spheres of organizational functioning? If the right circumstances existed in an organization, would the deliberate intervention of the five disciplines be necessary at all, or would they just naturally come into use as a consequence of the context? Is it even possible for many people to practice the five disciplines with any hope of success, given that to do so requires very serious work on the often fragile and deeply entrenched makeup of their personal being to be open to quantum leaps in thinking and behaving? If so, is there a set of prerequisite skills and/or affects that can lead to the state of readiness from which assured advancement can occur? Finally, to what extent do the answers to these questions apply in a generic way to all conceivable organizational forms?

Some of the reports on the attempts to convert organizations into learning organizations contain recurring, strongly emphasized themes that are areas to which attention must be paid to make progress. These themes are all critical aspects of human organizational functioning and reality.

The most central of themes in terms of a starting point for discussion and a focal point around which all others revolve is that of meaning. Meaning encompasses the beliefs, understanding, values, purposes and visions that people possess. It lies at the very heart of the motivation intrinsic to the human spirit as it is the source for the reason for being. A powerful testimonial to the tremendous significance of this point is given by Frankel (1959). As a result of his own life experiences as well as his observations, he makes the case that any individual can withstand the severest of trials if they have a reason for living. Harri-Augstein & Thomas (1991), integrate this idea into the realm of learning by making it central to their definition of learning. They state that learning is " the conversational construction of personally significant, relevant and viable meaning" (p. 6). This differs greatly from the traditional, widely used definition of learning as a "change in behavior" (Lefrancois, 1985, p. 22). It also infers that only when the complex, composite web of meaning that people possess is consistent with the aspirations, endeavors and activities with which they are engaged, do they function optimally (Kuczmarski & Kuczmarski, 1995; and Leibig, 1994). As people learn, their intricate meaning system and structure is altered. This leads to changes in what people undertake and the

approaches they employ. Wheatley (1992), sheds light on how meaning can also be the way in which tremendous continuous changes can be managed without a complete loss of a sense of direction, and without disorientation, disgruntlement and resistance occurring on a large scale. She does this by applying chaos theory to change management. In nature, wherever there is a system that is unpredictable, it is said to be in chaos. However, regardless of how chaotic any system might be, it always falls within some kind of a framework that limits its sphere of random expression. The rule or influence that imposes this limitation is referred to as the strange attractor for that system. Her claim is that meaning is the strange attractor or order retaining influence in the chaos wrought upon organizations by rapid, erratic changes. As long as a group maintains a focus on building and utilizing shared meaning as the pivotal point of their interactions, they can withstand any disorder around them and persist in fulfilling their goals.

Closely coupled with the theme of meaning is the whole area of needs fulfillment. While the theme of meaning is central to other themes, that of needs fulfillment can be said to underlie the remaining ones. All organizations meet needs within and beyond their boundaries by supplying goods and/or services to clients. This is distinct from the needs of the organization members that are met through using their share of the remuneration which they receive for their efforts. The needs addressed by this remuneration and by other organizational initiatives vary greatly. Covey (1989), points out that up until the last few decades, the focus of organizations has

been almost exclusively to meet the basic survival needs of employees. Extras in the way of benefits and working conditions were often the subject of tough negotiation over long time periods. Any other needs that people had were left to them to find ways by which they could be met. Maslow (1970), outlines a hierarchy of human needs. They are divided into two major categories: the basic needs consisting of physiological, safety, belonging and love and self esteem; and the meta needs including cognitive, esthetic and self-actualization. Typically, the meta needs cannot be pursued unless the basic needs are met to a reasonable degree. Glasser (1984), identifies five needs: survival and reproduction; belonging, love, sharing and cooperating; power; freedom; and fun. The parallel between the two lists is striking at the basic needs level, but the higher needs identified by Glasser provide a very different perspective than the interpretation given by Maslow. Covey (1989), states that fully developed, healthy human beings all go through three stages of maturation: dependence, independence and interdependence. He ties the achievement of these three stages to the success of the individual and provides a chart of practices, the observation of which leads to personal wholeness. Only when people are functioning at the interdependent level can they truly be team players, an essential ingredient for higher functioning and therefore accelerated learning by individuals as well as larger units. Unfortunately, most people never reach this state of being, partially due to their needs not being met, but also because they are unaware of how to embark on the journey. The author emphasizes that the

workplace as well as other venues in which people interact, must become proactive in facilitating the needs fulfillment process internally and through networking in the larger community.

Anything that takes place in an organization is the result of the strategies, processes and structures put into place for the outcomes to be effected. It is through these vehicles that meaning can be given life, needs can be met and other activities and functions can occur. These three themes encompass all of the contexts and dynamics involved in organizations and may be said to constitute the organization portion of the term learning organization. The theme of strategies is the direct connection between the organizational vision as a crucial part of the meaning system, and the processes and structures that manifest it (Bennett & O'Brien, 1994). It involves the planning phases and is the medium by which the ideas expressed in the organization are transposed to be put into action. Some of the contributors that suggest general strategies, ways of arriving at strategies, methods of implementing strategies and considerations for strategy formulation include McGill, Slocum & Lei (1992); Dixon, (1991); and Prahalad & Hamel (1990). Each proposes complementary directives aimed at different concerns pertinent to the formation of implementation sequences. The themes of process and structure are closely related. Process is the day to day way of doing things. It encompasses all of the activities that occur in organizations from the establishment of shared meaning to the provision of services and/or the production of goods. These activities include the necessary learning, brainstorming, producing and

interacting that enable such creativity and execution to transpire. Wheatley (1994), Galagan (1993), Ellerington, Marsick & Dechant (1992), Murphy (1992), and Brown (1991), provide input on the foundations upon which the processes that facilitate learning organization evolution should be based. Their accounts traverse a cross section of organizational types including military, educational, industrial and business. Structure consists of the governance and system conditions that guide the processes. Such areas as the definition of roles, decision making, and the establishment of rules of operation are part of the structures (The High Success Network, 1993). Marsick, Watkins, O'Neil, Dixon & Catalanello (1994), McGill & Slocum (1993), and Ulrich, Jick & von Glinow (1993), suggest a number of ways that structure can be designed to be more facilitative to organizational learning and functioning. Mitchell (1994), discusses the educational system structures that impede change and recommends several alternatives. Block (1993), Nopper (1993), and Kramlinger (1992), approach both structure and process from a human resource management point of view, suggesting new roles and methods for these departments in organizations.

Close relationships, authentic communication, networking and partnerships are extremely desirous elements for all organizational functioning. The presence of an atmosphere of trust, openness, honesty, integrity and commitment is the result in large measure of such elements playing a significant part in the ongoing dynamics of any group. The designation frequently made to express such an atmosphere in one word is the term community. Senge, Kleiner,

Roberts, Ross & Smith (1994), refer to community building as one of the frontiers for exploration in organizations. Peck (1987, 1993), provides considerable detail on what community entails, and how it can be achieved and sustained. Ryan (1994), and Costa, Bellanca & Fogarty (1992), comment on the idea of community of learners from the point of view of how the promotion and development of community facilitates collaborative learning, and in turn, the learning in community settings enhances the qualities of the growing community. Nirenberg (1995), Fullan (1993), and Tapscott & Caston (1993), discuss at length the necessity for interorganizational and partnership relationships. The purpose of such relationships is for the limiting of redundancies that create obstacles to smoother operations, and for the realization of tremendous benefits in the areas of information sharing, learning new ways of synergizing, and the innovation of products and services that could not be developed in isolation. It is in light of these multiple references to community building that it is included as a theme for consideration in this work.

Furthermore, the phrase "learning community", is much more inclusive than the term "learning organization", in that it communicates more effectively the emphasis that must be placed on human factors to improve overall organizational performance. Sufficient emphasis is placed on these community elements and sufficient use is made of the term learning community, that for expedience it is hereafter the term of choice for this writing. It envelops all forms of organizations that are striving to become

learning organizations, irrespective of which term is used to represent them.

Previous mention was made of the fact that people engaging in the practice of the five disciplines have to do difficult personal work in order to master them. To function in community, if the aspiration is to arrive at continuous, profound, synergistic interactions, the personal work that must be done is even greater. In fact, people must delve so deep into the foundations of their humanness both as individuals and in shared activity, that accounts on the learning community make constant references to the psychospiritual realm of human existence. Jaccaci (1989), ties spirituality to optimal human functioning and hence to successful learning. Peck (1987, 1993), bases much of his theory and practice of community on years of experience as a therapist. He comments extensively on the connections between spirituality and psychology as they relate to well being. His discussions bring to light an area of need that all people have besides those already suggested: the human need for inner healing due to the deprivation of needs at various times in their life, to varying degrees. It is one thing to attempt to create conditions in a community of workers or a civic community whereby needs can be met, it is quite another task to assist people through community interactions and the availability of interventions such as therapies to deal with past and current brokeness. While this may seem an enormous undertaking, beyond the scope of the small to medium community complex to address, if it is considered at a societal level, the contributions by each community partner would be

nominal. There is no doubt that huge gains in productivity can be realized by communities through improved human factors as well as through reduced costs for band aid, short lived solutions.

No exploration of learning community themes would be near completion without a thorough discussion on learning. Advances in learning theory research establish a foundation for understanding what considerations can be taken into account in creating ideal learning environments, complete with the best possible strategies, focal points and resources. Costa, Bellanca & Fogarty (1992), shed light on the latest research and best practices in their coverage of a cross section of these areas. They strongly support the kinds of learnings represented in the five disciplines and offer means by which skills and awarenesses can be developed to enable such learnings to be accelerated. Included in the list are multiple intelligences, cooperative learning, contextual learning, cognitive strategies, metacognition, previous learning and the higher order thinking skills of creativity, critical thinking, transfer and dimensions of learning. To further broaden the perspective on learning in communities, several types of learning have been identified. Watkins & Marsick (1993), allude to formal, informal and incidental learning. Formal learning is expanded upon by Brinkerhoff & Gill (1994). It encompasses intentional training and learning enacted by the community, ranging from the delivery of long term programs to the use of strategies such as just-in-time, just-enough, relevant training that maximize the immediate impacts of the learning. Informal learning is set in motion on an as needed basis by

individuals and groups within the learning community of their own accord. Harri-Augstein & Thomas (1991), describe the processes to undergo to become self-organized learners. Their techniques empower learners with the ability to decide what they need to learn, how to design the learning experiences and how to extract what they need in the most effective and efficient way. Costa & Garmston (1994), advise their readers as to how to develop the coaching skills necessary to guide learners to being more self-organized. The arena of incidental learning consists of all of the knowledge that is gained unintentionally as the result of experience and conversation that is not recorded or measured but which consists of a very high per cent of the learning that occurs in communities. Typically, this type of knowledge can be gathered through reflection on incidents that have occurred, followed by the recording of the discoveries that were made. Conversion of this new knowledge acquisition to organizational intelligence or wisdom can be accomplished by dialogue and actions that lead to its appropriate application. A fourth type of community learning is that of generative learning. An example of this deliberate, creative activity is given by Nonaka and Takeuchi (1995). They describe how companies have put into place the necessary conditions for innovative developments such as the bread making machine produced by the Matsuchita Corporation in the late 1980's. This undertaking involved parallel teams competing with one another to arrive at the best ideas for a new product design. Learning experiences such as apprenticing with expert breadmakers and using cross functional teams for brainstorming and

experimentation were an integral part of this scheme. Once complete, the learning that occurred was embedded throughout the organization wherever it could be leveraged.

Several computer based technologies have paved the way for some original learning methods that put key learning theory factors into action. Learning labs wherein simulations, modeling and scenario planning can be computer assisted are extremely helpful tools for minimizing error in decision making and optimizing success in meeting and creating desired futures (Senge, Kleiner, Roberts, Ross & Smith, 1994; Papert, 1993, 1980). Finally, the installation of artificial intelligence technology in the form of expert systems to collect, analyze, store, recall and apply learning from all sources serves to improve systems and prevent stoppages or delays (Rao & Wang, 1995).

Despite the best of understanding of all the aforementioned themes and what it might take to integrate such insights into the daily life of learning communities, no progress will be made without the facilitation and direction of model leaders. Among those who articulate this view are Beck & Yeager (1994), Peters (1994), Oakley & Krug (1991), and Block (1987). They outline leadership characteristics, steps for leaders to take in fulfilling certain roles and ways in which leaders can effect their own personal paradigm shifts in thinking and behaving. Tapscott & Caston (1993), tie the impacts of technology in the workplace to the consequent changes that are being made to the responsibilities associated with leadership. They

also describe the competencies, qualities and postures required for learning community facilitators to be successful.

The final theme for examination regarding learning community development is that of resources. Such requirements as time, venues, materials, services, technologies and information are included in this list. This theme is not handled in depth by any one source. Rather, it is mentioned in a passing way in much of the literature, largely in conjunction with a comment on another category. Nonaka & Takeuchi (1995), Papert (1993), and Tapscott & Caston (1993), outline most thoroughly the considerations that are pertinent for the allocation, distribution and effective use of resources.

Each of the nine themes above appear in the literature accompanied by multiple aides to implementation in the form of guides, principles, steps, practices, techniques and other tools. Several practitioners have managed to combine a number of these themes, complete with application mechanisms, into more integrative frameworks in an attempt to arrive at a holistic model for learning community facilitation.

Integrative Frameworks

Seven sources are cited in this section that offer multi-faceted prescriptions for learning community development. Although each of them is unique in its thrust, perspective and methodology, the same themes identified earlier continue to surface throughout these works to varying degrees and in different combinations.

Pinchot & Pinchot (1993), claim that there are seven necessary conditions for the realization of intelligent organizations. Under each condition, they describe the rights, structure, relationships and values that are key to meeting it. Along with a strong emphasis on self-organizing systems, they advocate the notion of effective community as critical to meeting present day challenges. They take the position that freedom of choice must be a characteristic in communities, but that it must be balanced by a sense of responsibility for the whole. They attest that the strategies they describe result in higher productivity for the clients whom they have served.

A heavy focus on formal learning, particularly for the acquisition of personal, team and leadership skills, is presented by Tobin (1993), complete with a thorough picture of what is required to master them. He goes on to identify five principles and five foundations for the learning community. In addition, characteristics, roles, practices and action steps are detailed. A tool for determining the starting point for an organization to begin the journey to becoming a learning community is also enclosed. The author distinguishes between traditional training schemes and the type of formal interventions that best fulfill current demands. He also states that the use of clear, sound measurement techniques for analyzing the results of all formal learning should be an ongoing practice to justify efforts in this area.

Redding & Catalanello (1994), center their treatise on the community wide level of learning. They base their arguments for achieving accelerated learning on the ability of a community to go

through learning cycles in the shortest time frame possible, to the greatest depth they can explore and the broadest area that can be covered. The cycles themselves involve planning, implementation and reflection stages and thus are experiential and interactive in nature. The authors outline various steps and stages to improve community learning and indicate ways of measuring progress. They see the learning community as being a self-organized entity and describe the principles that can lead to its emergence.

For a step by step method to the evolution of a learning community, the research of Kline & Saunders (1993), is a prime reference to consult. Their most powerful message is that people learn in many different ways, use diverse strategies to do so and can have their learning accelerated significantly given certain skill development opportunities and conditions for functioning. To that end, they list learning principles, characteristics of positive learning environments, qualifications of learning leaders, and general conditions for a thriving learning community environment. To help beginners make a start, a matrix type assessment tool is offered that places the organization in perspective with respect to its current state as a facilitative setting for high functioning and accelerated learning.

The notion of self-organized, continuous learning is dealt with via a series of steps, several power tools and a formula, in Wick & Leon (1993). They begin with advice on how individuals within would be learning communities can progress as learners, and then apply the same learning processes to institute learning at the

organizational level. A number of hurdles to learning are identified along with suggested ways of overcoming them. A learning inventory is provided by which a community can rate its progress. Desirable management characteristics and preferred roles for leadership are outlined. Several case studies of the efforts of selected industries to advance their learning capabilities are presented, outlining how they have applied some aides to development and what rewards they have reaped for their efforts. The writers close with a summary of learning lessons that they have discovered through their experience.

Watkins & Marsick (1993), manage to tie a collection of action imperatives to the various interactive levels, from individual to societal or community, in all forms of collectives. The action imperatives are aimed at articulating how to make the learning community dynamics come into being by utilizing existing organizational mechanisms differently or inventing suitable replacements. A model that integrates the experience of work with the learning process in a repeating cycle is given, accompanied by steps that aspiring learning communities can take to embrace continuous learning. The continuum stretching from informal to formal learning is charted to clarify the vast gap that exists between the extremes of incidental learning at the informal end and degree programs at the formal end. This establishes a base from which a parallel spectrum of strategies, processes, structures and other facets of organizational reality can be designed to fall in line with whatever

conditions are necessary to facilitate each composite segment representing a learning type on the continuum.

The use of action technologies as tools for learning is also discussed by Watkins & Marsick (1993). These tools are particularly helpful in the problem solving and group learning processes. In addition, the writers describe a model for learning at the organizational level that extends from the stimulus for motivating learning, to the way in which the eventual discoveries are embedded in the community memory and integrated as part of the overall base upon which actions are taken.

Community building is emphasized in the integrative framework proposed by Nirenberg (1993). He also stresses the importance of aligning the needs of members with those of the community and the design of structures that are conducive to learning. Ideal conditions for community enhancement and tools for creating them are detailed. Distinctions are made between organizations and communities as a means of comparing traditional and emerging forms. What is succinctly and firmly established is that the paradigm shift to becoming a learning community is an immense undertaking.

Summary

The learning community is a dynamic that offers an alternative to the existing organizational order. However, some means is required to articulate how to facilitate it in a comprehensive and flexible manner that people can both understand and apply. Despite the numerous invaluable contributions that appear in the literature,

no comprehensive framework exists that encompasses all of the recurring themes and summarizes all of the directive aides to implementation located therein. It is evident that the development of such a comprehensive framework is a complex and difficult prospect, that would require continuous experimentation, assessment and revision. However, a preliminary synthesis of facilitative devices would be a feasible point of departure from the existing scenario, that could form a base for ongoing refinement.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

This chapter describes the groundwork that was done in preparation for this study to develop a set of prospective applied concepts that facilitate a learning community. The procedures that were followed in carrying out the investigation for this research are then outlined. Subsequently, details are provided on the way in which the instrument was designed to acquire the necessary data to answer the primary question and the supporting questions that were the focus of this work. Finally, the data analysis processes are explained that were used to derive meaning from the results.

The Extraction Process

The purpose of this research was to find out what the applied concepts are that are needed to facilitate a learning community. In order to compile an initial list of applied concepts, an extensive literature search was done of books, proceedings, articles and government documents on the learning community that were written by consultants or facilitators who had direct experience with implementing learning community concepts. The criteria for extracting an applied concept was as follows: when a directive, prescriptive action statement, found in the literature, was either explicitly articulated or strongly inferred, to be needed to facilitate a

learning community, it was recorded as a possible applied concept or portion thereof.

To obtain suitable materials, the Education Index, Dissertation Abstracts, Education Theses and several government reports were examined along with the following computer data bases: Education Resources Information Center, Dialogue, Bibliographic Retrieval System and Netscape InfoSeek and Excite.

Several hundred statements were listed initially, drawn from the materials found in the search. These were then reviewed using an iterative process of examining each in light of the others and the contexts from which they were drawn as new additions were made. Since many of the directive statements were repeated frequently in the literature, a summary of the primary source used for each is provided in Appendix 5.

Whenever an action statement found in the literature was considered to be a duplicate of one already extracted, rather than repeating it, a check mark was placed beside the existing one. Once all of the available resources had been tapped, redundancies were eliminated by closely inspecting the wording of the extracted statements and identifying those that had the same meaning, that were not identified during the creation of the list. Repeats were removed and a check mark was placed beside the original for each one.

As the work progressed, a number of distinct themes emerged among the recorded action statements that presented a means of organizing them into clusters that bore some common thread or

relationship. These included: Shared Meaning, Needs Fulfillment, Planning and Strategies, Processes, Structures, Learning Experiences, Leadership, Community Building and Resources.

Once all of the extracted statements were located within one of the theme areas, the applied concepts were generated on the following basis: if a statement had no close connection with any others, it was left unaltered; if two or more specific directives that were related could be integrated into one inclusive, general statement without compromising their meaning, they were so combined; and, if parallel directives were found that had strong ties, but would lose meaning if generalized, they were compounded within one statement in list form. As a result of this process, none of the applied concepts were original unaltered quoted statements. All had been modified in some way either through paraphrasing to capture the essence of two or more similar statements, or they had been extracted as a summary of a section within the text, or they had been combined with other statements.

Following these procedures, the applied concepts were then listed within each theme in the order of frequency of occurrence in the reviewed literature. Where two or more statements were integrated into one applied concept, that applied concept was assigned the frequency number of the source statement with the highest number of check marks. For the instrument design to be limited to a reasonable length, the six most robust applied concepts from each theme were selected for validation. The decision to limit the number of applied concepts to six for each theme area was an

arbitrary selection. In no way was it intended that the themes were therefore considered to be equally important to the facilitation of learning communities. Furthermore, in no way was the selection of the number six meant to indicate that additional statements were not important to the facilitation of learning communities. Some limitation had to be placed on the scope of the research to make it possible for participants to be involved. The entire extraction process was carried out solely by the researcher.

Data Acquisition Process

Introduction

The data acquisition process for this study consisted of three phases. In Phase One, an expert consultant in the Center for Research in Applied Measurement and Evaluation in the Faculty of Education at the University of Alberta was selected to provide input on the research methodology.

Phase Two consisted of a pilot study. Three human resource management practitioners and one public school principal with knowledge of the learning community dynamic were asked to review the initial version of the instrument to assist with the following considerations:

1. Are the instructions for the instrument clear?
2. Are the applied concepts well articulated?
3. Are the themes representative of the applied concepts grouped within them?
4. Is the time taken to respond to the instrument reasonable?

Any recommendations made in Phase Two are documented in the following section.

Feedback Summary

The statistics consultant from the Center for Research in Applied Measurement and Evaluation at the University of Alberta recommended that at least 80 returns be collected in order to ensure that sufficient returns would be forthcoming to provide valid data. In this way, the chances of each sub-group based on age, gender, workplace type and workplace readiness within the population surveyed having sufficient numbers of participants contributing was very high. The suggested figure was 20 responses per sub-group to provide an appropriate finding. This was the reason behind the decision to try to survey as many as 130 participants

The consultant also recommended which results should be sought out and in what manner. He advised using the Likert scale with the point system as outlined in Chapter 3 for obtaining averages that would indicate the need for each applied concept. In this way, any averages calculated for an applied concept that were 3.0 or above indicated a majority of the respondents from that group perceived that applied concept to be needed. Similarly, any theme averages calculated for a segment of the population that resulted in a score of 18.0 or higher, meant that that theme was considered by that group to be needed.

Since no attempt was being made in the study to generalize to larger populations, no significance tests were recommended by the consultant.

The recommendations from the four participants in the pilot study were based on their responses to the four questions posed to them. The first question asked if the instructions on the instrument were clear. All four respondents said they understood them clearly. No changes were recommended. The second question asked whether or not the applied concepts were well articulated. Clarification was recommended on the following applied concepts: A1, A3, C2, C5, C6, D5, D6, E4, E5, F3, F5, F6, G6, H4, H6, and I5. In each case, the wording was changed as suggested in writing by the participants (see Appendix 3). No other applied concepts were considered to be a problem. Question three asked if the themes were representative of the applied concepts within them. All four participants agreed that all of the applied concepts were well placed in the themes into which they were organized. The final question dealt with the issue of time. Participants were timed as they responded to the survey. The average time taken was 30 minutes. All respondents felt that this was a reasonable length of time for completing such a survey.

Survey Procedure

Phase Three began with the selection of participants. The criteria for their selection were: (1) They had to be learning leaders in their place of employment (see Chapter 1 for the definition of a learning leader). This was decided on the basis that the learning leaders are most likely to be able to comment on learning and organization development matters; (2) They had to be familiar with the learning community or learning organization concept through formal or informal learning experiences. The requirement for this

criteria emerged out of a need to ensure that the participants would be responding with the ability to connect the prospective applied concepts to the facilitation of a dynamic about which they had formulated some initial vision; (3) The participants had to have had some experience with learning community implementation, or with recent change initiatives such as total quality management or reengineering in business or industry, or site based management in the school system. Due to the fact that no local organizations claim to be high functioning learning communities, the best input available for validation rested within the experiences of those people who had engaged in change efforts. They could comment on applied concepts on the basis of their first hand observations.

Two types of organizations were of interest to this researcher: The public education system wherein young people are being prepared for a world that has drastically changed; and the activity centers of today encompassing industry, business, government and various institutions that are coping consistently with ongoing change.

To collect data from the education system, the Edmonton Public School District was chosen because of its implementation of site based management for over 15 years. The principals were selected as the learning leaders because they have the closest view of both the site where they are located and the higher management with whom they collaborate; they are responsible for all professional development and stakeholder involvement; and they manage the entire operation of the school to which they have been assigned (Barth, 1990; Fullan, 1993). A list of principals was provided freely

by the office of the research consultant for the Edmonton Public School District. Approximately 200 principals are employed by the board.

Human resource management staff and consultants were determined to be the most knowledgeable learning leaders in the activity centers. They are responsible for learning processes and increasingly for organization development and effectiveness initiatives (Brinkerhoff and Gill, 1994; and Tobin, 1993). Furthermore, a study done in the Edmonton area to determine the professional development needs of human resource personnel, ranked the ability to support the creation and development of a learning community as the second highest competency (Collette, 1994). Prospective human resource management participants were selected from three sources: a list of members of a local learning organization interest group; a list of attendees to a workshop on the learning organization held in May of 1995 at the University of Alberta; and a list of members of the Alberta Society for Human Resources and Organizational Development (A.S.H.R.O.D.) that were identified as learning leaders in their place of work. The first two lists were provided freely by participants. The third list was provided upon mailing a copy of the thesis proposal to the executive of A.S.H.R.O.D. After examining it, the executive determined that it was suitable for presentation to their membership. A total of approximately 130 names appeared on the three lists.

In order to do the research in the Edmonton Public School District, a copy of the thesis proposal along with a list of possible

schools to be involved were sent to their research department in their central office. Principals at schools selected at random were asked in an informal telephone call if they might be interested in this research, subject to clearance from the district officials. The names of the schools where the first 65 principals were assigned, that expressed an interest in reviewing the proposal for possible participation were the ones submitted. Once approval was gained to do the research, these principals, who all met criteria one and three, were asked in a screening phone call (see Appendix 1) whether they had some knowledge of the learning community. Sixty-one claimed to have background in the area. Of these, 56 agreed to participate. These participants were then mailed the surveys and asked to return them within two weeks. In a follow up phone call that was made seven days after the mailing, to check if respondents had received their forms and to serve as a reminder of the deadline, many respondents stated that they were under considerable time pressures. As a result, a one week extension was granted. Forty-three completed instruments were returned in time for a total of 77%. Six arrived after the data tabulations had begun and four were misplaced as a result of the fact that principals who were being reassigned for the Fall of 1997 were working in alternate locations for the majority of the time. The remainder decided not to participate or were unable to do so.

The human resource management and consultant subjects on the first two lists of people encountered in the interest group and workshop met all three criteria, as their knowledge and experience

were attested to in personal contacts with them. The prospective candidates from the A.S.H.R.O.D. list received the same screening call as did the principals except that they were also asked about their background with regards to change initiatives. Calls were made at random from a combined list until 65 qualified respondents were identified (see Appendix 1). Sixty-four of these agreed to participate. These people were sent copies of the instrument. In making a follow up call to each respondent as a reminder and to check if they had received the instrument, a large number indicated that they were under time pressures as did the principals. This resulted in the decision to extend the deadline by one week for these participants as well. Fifty-one completed surveys were returned for a total of 80%.

Along with the research instrument (see Appendix 3), each participant received a copy of a cover letter (see Appendix 2), and two self addressed, stamped envelopes. One of the envelopes was for returning the final page of the instrument under a separate cover, for the purpose of requesting further information on the learning community, to be received at the conclusion of this study.

The second envelope was for returning the completed survey in an anonymous way. No participant's responses could in any way be identified, nor could their place of activity be identified.

Ethics Procedures

All conditions in the University of Alberta Ethics Review Policies and Procedures Manual were met. The purpose, nature and method of research was explained to the participants in a phone call. They

were asked if they were willing to participate in the research at the same time. No information was passed on regarding which contacts agreed and which disagreed and no pressure was directed at those who declined to participate. Each instrument sent to those people who agreed to participate contained an explanation of their right to opt out of the research. No coercion or threat was made to any respondent who exercised this right. The respondents were assured of confidentiality and anonymity regarding their contributions to the research both in the telephone contact and in the instrument materials. Each participant received an unmarked, stamped envelope with the researcher's address on it included in their survey package. By mailing the forms via this method, all responses were anonymous. No information collected was reported in any way that could lead to the identity of the source. This procedure maintained confidentiality. When work was not in progress, all of the instruments were kept in a locked file cabinet in the workplace of the researcher until the analysis was complete. The instruments were destroyed once the results were summarized.

Instrument Design

The final instrument used in this research consisted of three parts: Part A involved demographics; Part B requested information regarding the needs perception of the applied concepts; Part C asked participants to indicate their perception of the readiness of their workplace for the implementation of the applied concepts; and Part D

provided for additions and modifications to applied concepts. Each part is discussed below in the order in which they address research questions #1 through #3. All results in the form of tables and figures and accompanying analysis are to be found in Chapter 4.

Part B of the finalized instrument for this study consisted of a list of the 54 extracted and pilot tested applied concepts organized in random order into their respective themes. Adjacent to each applied concept was a Likert scale divided into five increments as follows: *Strongly Agree (SA), Agree (A), Not Sure (NS), Disagree (D), Strongly Disagree (SD).* The participants were asked to indicate to what extent they believe each applied concept to be needed to facilitate a learning community in their place of work, by circling the most suitable option on the scale.

By assigning the following values to each increment, Sub-Questions #1 and #2(a) and (b) were addressed: 5 to (SA), 4 to (A), 3 to (NS), 2 to (D), 1 to (SD).

To answer Sub-Question #1: Do learning leaders in Edmonton perceive the applied concepts extracted from the literature to be needed to facilitate a learning community in their workplace?; an applied concept was considered needed if a minimum of a simple majority of the respondents so indicated. This ensured that that applied concept was retained on the final list compiled at the conclusion of this research.

To answer Sub-Question #2(a): Is there an order of priority among the applied concepts?; the same totals arrived at in Sub-Question #1 for each applied concept, were used to compare the

values of the applied concepts. In addition to establishing the ranking of each applied concept relative to one another, the data are displayed in such a manner as to make it easy to discern the ranking of all of the applied concepts within each theme.

To answer Sub-Question #2(b): Is there an order of priority among the themes into which the applied concepts are grouped?; the totals for each applied concept within each theme were averaged. The theme with the highest value was considered to be the first priority, and all others were arranged in descending order according to their respective values.

In order to analyze the data for possible areas needing correction and/or further clarification, the frequency of occurrence of the *not sure* response was calculated and displayed for each applied concept. Comparisons were made for matches between high frequency *not sure* responses and overall low averages in the perceived needs area.

One question was directed at the respondents in Part C. It asked them to rate the state of readiness of their workplace for learning community implementation. This survey question addressed a portion of Sub-Question #3: What differences exist in the responses of learning leaders to Sub-Questions #1 and #2(a) and (b), based on the state of readiness of their workplace for implementing needed applied concepts? The data from this question aided in discerning whether there was any difference in the perceived need for the applied concepts based on the perceived state of readiness of the workplace for implementing them. This was indicated by the

participants on a scale from one to six, with one and two being a low state of readiness, three and four a medium state of readiness, and five and six a high state of readiness. The averaged rating of each applied concept and theme for each of the three states of readiness was calculated and displayed.

Part A of the instrument addressed the remaining portions of Sub-Question #3: What differences exist in the responses of learning leaders to Sub-Questions #1 and #2(a) and (b), based on their age, gender, and workplace category? The participants were asked to state their age in years. Gender was reported as Male(M), or Female(F). Workplace category was check marked as the k-12 public education system, a not-for-profit organization or a for-profit organization. Averages were calculated and displayed indicating which applied concepts were declared needed and how the applied concepts and themes were rated by the following groups: males, females, age under 42 years, age between 42 and 49 years, age over 49 years, k-12 public education workplace, and the combined not-for-profit and for-profit workplaces.

Part D of the instrument provided a means for collecting qualitative feedback on the applied concepts. Participants were invited to contribute modified versions of applied concepts and additional applied concepts which they believed should be included on the list. These suggestions were reviewed against existing applied concepts and listed in Appendix 4.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

Introduction

The report on the findings for this research begins with a summary of the numbers of responses that were returned by the participants. This is followed by the presentation and analysis of the data received by the research participants in the form of tables and figures. The survey results are discussed in the order of the research sub-questions from #1 to #3. Finally, qualitative data in the form of comments, and suggestions are summarized and evaluated.

Frequency of Returns

A total of 120 surveys were mailed to respondents. Of these, 94 completed the instruments for an overall total of 78%. Table 1 indicates the breakdown of the 120 participants for each of the four categories used in the research. The first three categories were demographic and included gender (male or female) , type of workplace (for-profit and not-for-profit or public schools), and age in years (under 42, 42 to 49, or over 49). The fourth category was the perceived state of readiness of the workplace for facilitating a learning community (low, medium or high). Each category is fully representative of the population of participants. In the case of the age category, three respondents did not report their age. All respondents returned requested information for all other sub-groups.

Table 1

Number of Participants in Each Sub Group

Category	Sub Group	No. of Participants	%
Gender			
	Male	46	49%
	Female	48	51%
	Total	94	100%
Workplace			
	For profit/Not for-profit	51	54%
	Public schools	43	46%
	Total	94	100%
Age			
	Under 42	23	25%
	42 to 49	39	43%
	Over 49	29	32%
	Not reported	3	3%
	Total	94	100%
Readiness			
	Low	13	14%
	Medium	54	57%
	High	27	29%
	Total	94	100%

General Needs Perception

The general needs perception is that of the surveyed population as a whole. It indicates what the average figures were for each of the 54 applied concepts and nine themes based on the returns of all 94 respondents.

Figure 1 shows the values for the applied concepts. Based on the fact that the Likert scale used for the research assigned values of 1.0 to *strongly disagree*, 2.0 to *disagree*, 3.0 to *not sure*, 4.0 to *agree*, and 5.0 to *strongly agree*; an averaged value for an applied concept of 3.0 meant that the majority of respondents perceived the need for that applied concept. All were considered needed by the respondents as reflected by the fact that their averages were all above 3.0. A final list of applied concepts appears in Table 2.

Each theme area consisted of six applied concepts. The theme average was simply the cumulative value of the averages of the applied concepts within that theme. A theme was considered to be perceived as needed if the theme average was 18.0 or higher. Based on that figure, all nine themes were perceived to be needed by the participants.

These results clearly answer Sub-Question #1: Do learning leaders in Edmonton perceive the applied concepts extracted from the literature to be needed to facilitate a learning community in their workplace? The learning leaders did perceive all of the applied concepts extracted from the literature to be needed to facilitate a learning community in their workplace. What is noteworthy is the fact that there are only three applied concepts below the 3.5 average and that there are only two above 4.5. Therefore, 91% of the applied concepts returned averages between 3.5 and 4.5. This means that although there exists general agreement, it is far from overwhelming.

In order to analyze the general needs perception one step further, a graph was drawn of the frequency of occurrence of *not*

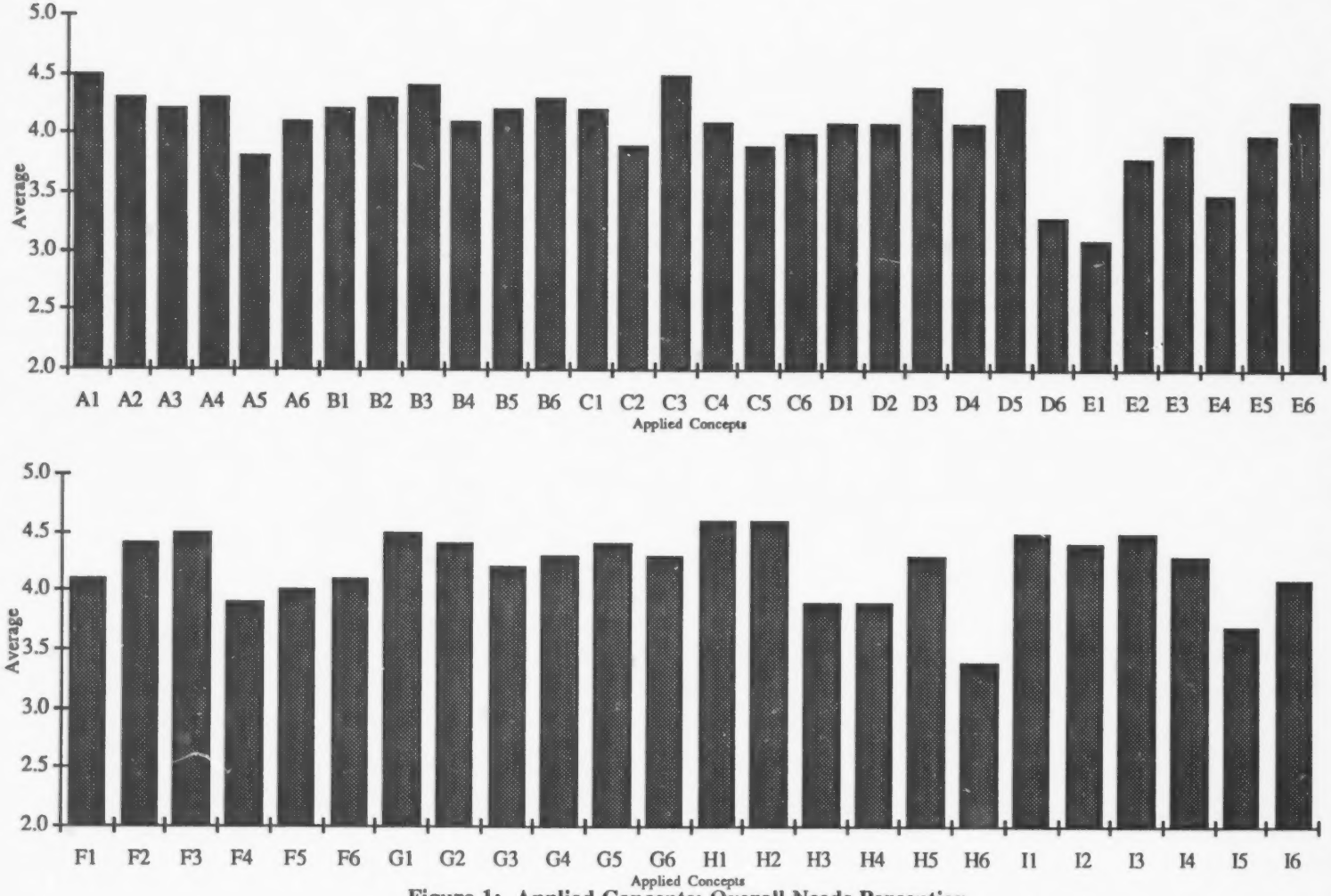


Figure 1: Applied Concepts: Overall Needs Perception

Table 2

Applied Concepts List

Theme A- Shared Meaning

A-1 Develop a complex culture based on shared meaning that encompasses the following aligned elements: beliefs, values, vision, mission, core competencies and goals.

A-2 Deepen, entrench and renew shared meaning consistently and continuously.

A-3 Manage the chaos resulting from rapid change and the complexities of self-organization through the direction, identity and commitment generated by shared meaning.

A-4 Establish a set of operating principles, guided by the shared meaning system, to act as the foundation for all decision making and actions.

A-5 Ensure that all contributions and concerns are processed in the engendering of shared meaning.

A-6 Assist members in surfacing and articulating their personal meaning systems and integrating them into the shared meaning system.

Theme B- Needs Fulfillment

B-1 Devise sensors and feedback channels to maintain an awareness of the personal needs of members for all developmental levels.

B-2 Make ongoing provision for the basic physical necessities of members including health, safety and security.

B-3 Provide required: support, feedback and acknowledgement; occasions for informal interaction; and opportunities for increased participation and responsibility.

B-4 Match individual interests, aspirations and capacities closely and directly with organizational needs.

B-5 Design roles to be fluid, challenging, relevant and fulfilling.

B-6 Encourage indulgence in playfulness, humor, risk, experimentation, spontaneity and outbursts of interest and excitement.

Theme C- Planning and Strategies

C-1 Ensure that all directives, functions and activities are cogenerated, modelled and supported by the top leadership.

C-2 Implement all needed applied concepts in an optimally integrated and balanced manner.

C-3 Provide the maximum possible access to information and mechanisms for creating and capturing knowledge throughout the organization.

C-4 Utilize needs assessments, scenarios, simulations, benchmarking and stories of past successes and failures to generate proactive, flexible plans and strategies.

C-5 Embed continuous and breakthrough improvement and innovation cycles within all facets of organizational functioning.

C-6 Analyze systems interrelationships to determine the points where the least intervention can effect the optimum desired change.

Theme D- Processes

D-1 Blend occasions for dealing with difficult issues, bridging differences and the rooting out of obstacles to learning into routine encounters.

D-2 Surface and challenge assumptions, norms, perspectives and modes to prompt deep learning and renewal.

D-3 Ensure sufficient contact among stakeholders to unearth concerns, share insights, identify future needs and devise solutions.

D-4 Alter work methods to accelerate development cycles, streamline operability and synchronize with new technologies.

D-5 Develop performance indicators to provide feedback on critical aspects of organizational functioning.

D-6 Utilize guided and skilled competition and conflict, and action learning technologies in conjunction with parallel teams to generate arrays of creative alternatives for problem solving.

Theme E- Structures

E-1 Employ hierarchical structures for routine, low impact operations and horizontal structures for critical, high priority decision making and functioning.

E-2 Inaugurate flexible teams as the primary organizational forms for both protracted assignments and short term projects.

E-3 Ensure that teams have adequate cross-level, cross-discipline, interdepartmental and interorganizational representation for effectual fulfillment of their objectives.

E-4 Tie all necessary external rewards by way of remuneration, acknowledgements and challenges to demonstrated self-organizing capability, competency development and productive contributions made at the personal, team and organizational levels.

E-5 Forge flexible role descriptions, outlining a range of expectations and accountabilities and detailing the contextual frameworks within which the activities are to be concentrated.

E-6 Build required support services into each unit or team or make them readily accessible across boundaries.

Theme F-Learning

F-1 Expand self-organized learning capabilities in formal, informal, incidental and generative learning contexts at the personal, team, organizational and interorganizational levels.

F-2 Grow in the ability to determine learning needs, set goals, design experiences, apply learnings and measure and assess impacts.

F-3 Deepen skills in critical and creative thinking, problem solving, inquiry, reflection, listening, communication and group interaction.

F-4 Make learning opportunities available in personal visioning, group process, surfacing assumptions, psychospiritual development, and principle centeredness.

F-5 Balance long term theoretical and competency building learning with just-in-time, just-enough, in context, directly applicable learning experiences.

F-6 Provide for ongoing development in higher order thinking, metacognition and collaborative learning in a way that addresses individual learning styles, strategies, affinities and intelligences.

Theme G- Leadership

G-1 Model and coach continuous growth in learning and functioning at all levels and in all spheres of living.
G-2 Facilitate the creation of settings, conditions and dynamics conducive to learning community development and sustainability.
G-3 Expand participative decision making and shared leadership, matching member competencies to task and process requirements.
G-4 Assist in the acquisition of learning resources and the design and delivery of learning experiences.
G-5 Cultivate the acquisition, creation and internalization of new knowledge.
G-6 Ensure fair and equitable selection practices, assignment distributions, group compositions and compensation schedules.

Theme H- Community Building

H-1 Relate with respect, caring, compassion, honesty, integrity and forgiveness.
H-2 Communicate clearly, simply, frequently and authentically, balancing dialogue and discussion and transcending roles, policies and status.
H-3 Provide means by which members can comfortably grow in self-awareness, surface personal areas of brokenness and vulnerability and move closer through healing to wholeness.
H-4 Grow in the tolerance of ambiguity, the balancing of task and bottom line with process and functioning from emptiness of obstacles to learning.
H-5 Surface and deal with difficult and painful issues and reconcile differences with integrity.
H-6 Invite consciously motivated, ethical submission to a Higher Power and commitment to the betterment of the human condition.

Theme I- Resources

I-1 Optimize the use of time when scheduling individual, team, organizational and network activities for the meeting of objectives.
I-2 Allocate budgets for human and material resources; balancing risks with potential returns, long and short term cycles, needs with wants and quality with efficacy.
I-3 Ensure that work and learning locations and layouts are safe, secure, healthy, comfortable and stimulating.
I-4 Make diverse coaching, mentoring, counselling and therapy services available and accessible through both direct and discreet means.
I-5 Screen resources, products, processes and waste through ecological filters.
I-6 Provide optimal technologies for working and learning including hardware and integrative software for multimedia; expert systems; communications; simulations; modeling; automation; process control; and data acquisition, processing and management.

Table 3

Theme Averages: Overall

Theme		Overall Average
A	Shared Meaning	25.1
B	Needs Fulfillment	25.7
C	Planning and Strategies	24.6
D	Processes	24.2
E	Structures	22.6
F	Learning	25.2
G	Leadership	25.9
H	Community Building	24.3
I	Resources	25.6

sure responses for each applied concept. *Not sure* responses can occur due to a lack of clear articulation of the applied concept, or a lack of depth of background on the part of the participant. Examination of Figure 2 , shows that 39 (72%) of the applied concepts had 15 or fewer *not sure* responses. Of the 15 applied concepts that had more than 15 *not sure* responses, only two had needs perception averages above 4.0. Furthermore, only one of the applied concepts that had a needs perception average below 4.0 had less than 15 *not sure* responses. This indicates that those applied concepts that have low averages also have higher numbers of *not sure* responses. Since none of those applied concepts were rejected by *disagree* and *strongly disagree* responses, the responsibility for lower averages falls to the *not sure* count. The applied concepts that received a high number of *not sure* responses include: A5, C2, C5, C6, D6, E1, E2, E4, F4, F5, H3, H6, and I5. These applied concepts are listed in Table 2.

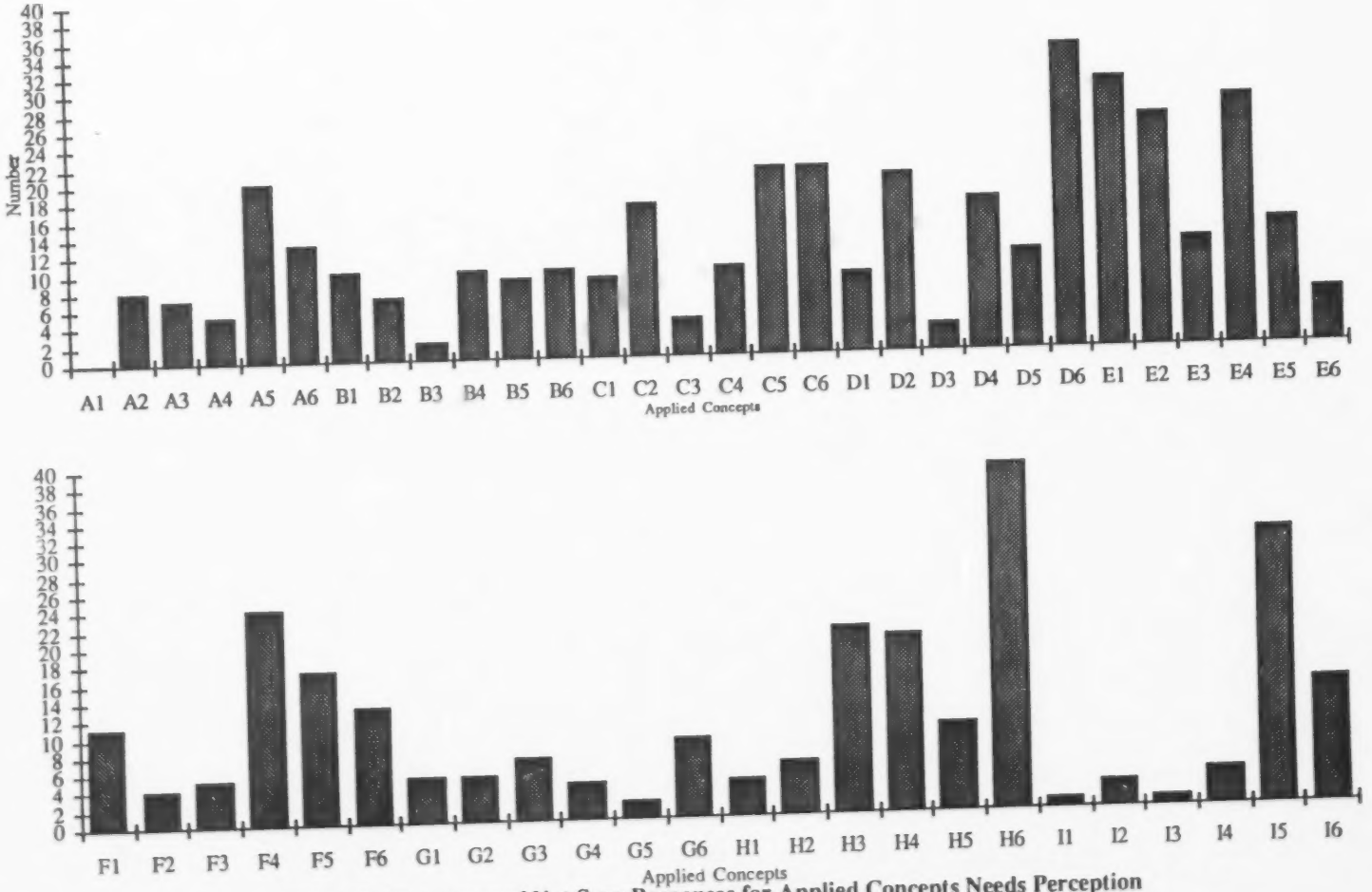


Figure 2: Frequency of Not Sure Responses for Applied Concepts Needs Perception

General Order of Priority

The general order of priority refers to the relative importance placed on each applied concept and theme by the overall population sampled. Figure 3 shows the average values assigned to each applied concept in descending order from left to right. H1 and H2 have the highest ranking, while E1 has the lowest. On the basis of this figure, it is evident that no one theme clearly dominates. Item by item, the applied concepts are well dispersed. For example, the first six applied concepts are from five different themes. Each subsequent grouping of six applied concepts in descending order of priority represents at least four themes.

Table 4 lists the theme averages in descending order of perceived need. Very little difference exists in the average values of themes A to H, a mere 1.5 points. Only theme I is somewhat removed from the cluster. This supports the observation made with respect to the order of priority of the applied concepts, in that the themes seem to be less distinct from one another in terms of ranking than the applied concepts. Figures 1 and 3 can both be used to determine the ranking of the applied concepts within their respective themes.

Table 4

Theme Ranking: Overall

Rank*	Theme	
1	G	Leadership
2	B	Needs Fulfillment
3	I	Resources
4	F	Learning
5	A	Shared Meaning
6	C	Planning and Strategies
7	H	Community Building
8	D	Processes
9	E	Structures

*#1 is the highest perceived need

The data on the orders of priority of the applied concepts and themes provides the response to research Sub-Question #2(a): Is there an order of priority among the applied concepts? and to research Sub-Question #2(b): Is there an order of priority among the themes into which the applied concepts are grouped? Clearly, an order of priority exists for both the applied concepts and the themes. However, the ranking of the applied concepts is much more pronounced.

Demographic Trends

The demographic trends are broken down into three areas: gender, type of workplace and age. Each of these sub-groups is examined with respect to responses concerning perceived needs of applied concepts and themes as well as order of priority of themes. The trends that emerge from the logged data make up the response

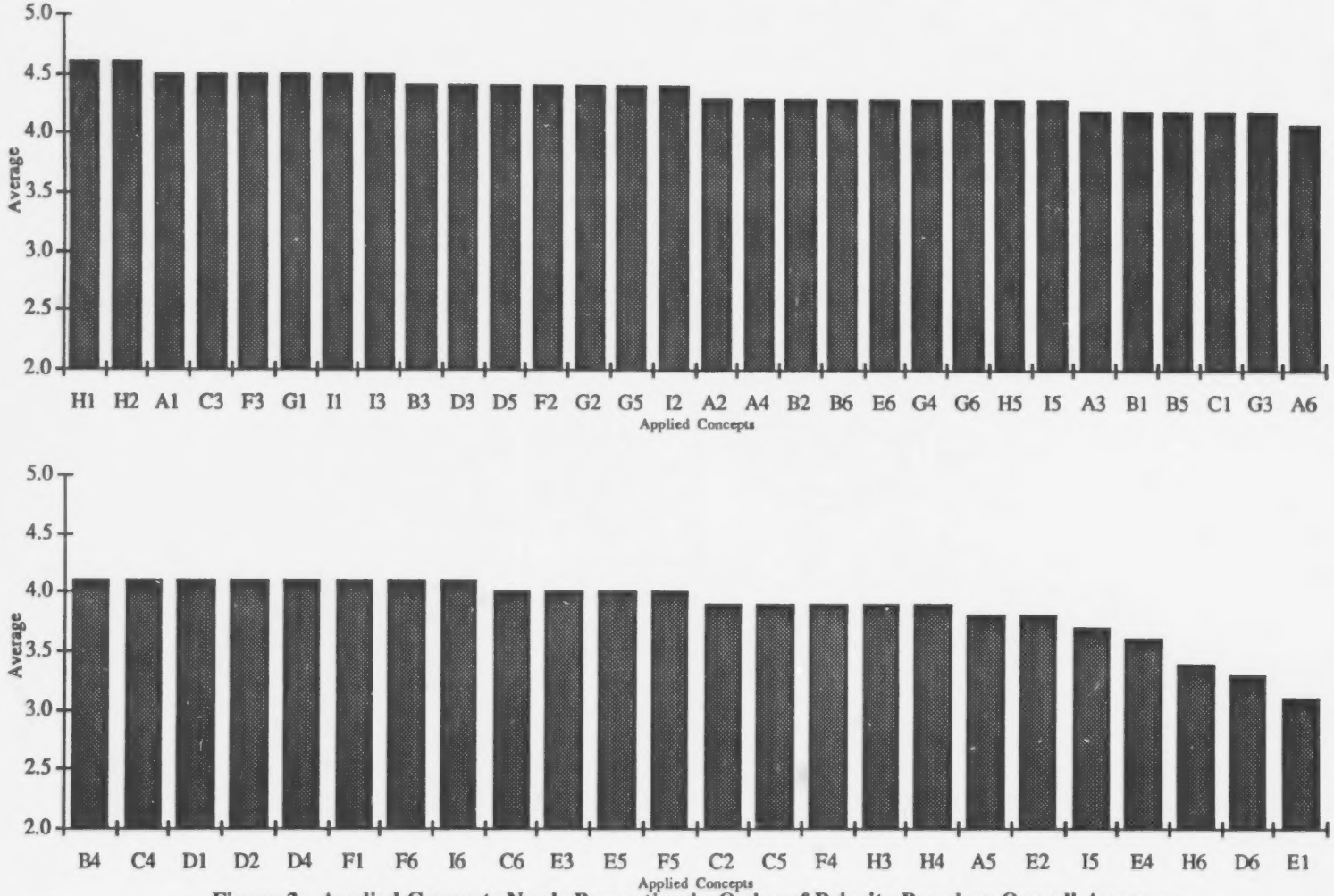
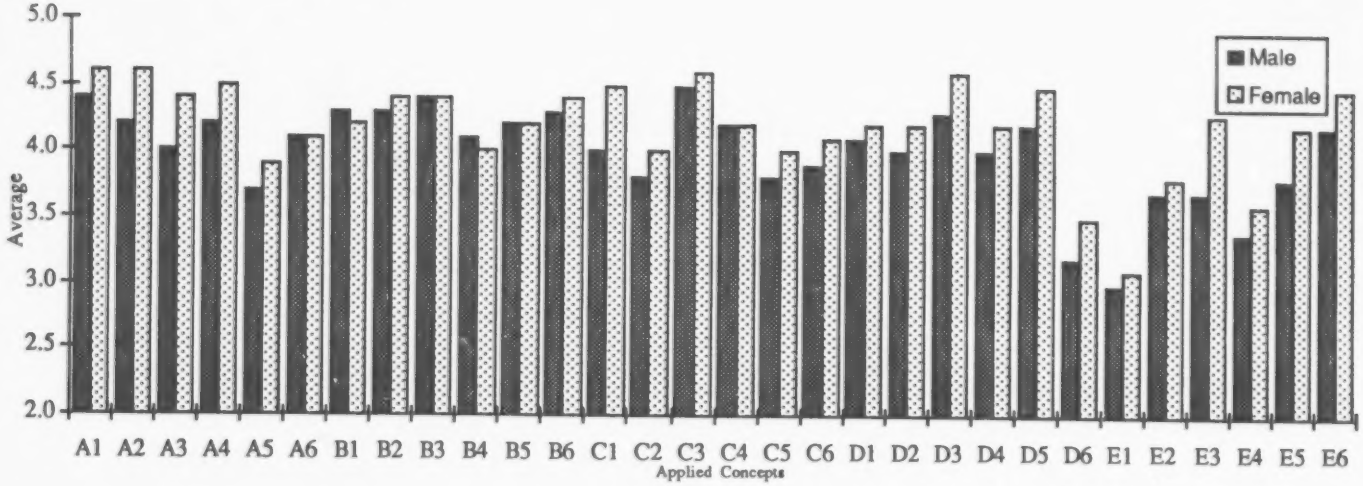


Figure 3: Applied Concepts Needs Perception in Order of Priority Based on Overall Averages

to part of Sub-Question #3: What differences exist in the responses of learning leaders to Sub-Questions #1 and #2(a) and (b)?

The gender data on perceived needs of the applied concepts is reported in Figure 4, disaggregated into male and female responses. The averages for male and female for each applied concept are shown adjacent to one another on the graph. For 44 applied concepts (82%), the females perceived a higher need than did the males. For four applied concepts (7%), both genders perceived needs equally. In the case of six applied concepts (11%), the males perceived a higher need than did the females. This shows a consistent pattern wherein a population evenly divided along gender lines shows that the female learning leaders perceived the need for most of the applied concepts higher than the male learning leaders did.

The display of theme averages along gender lines in Table 5 shows that for each theme, the females have a higher needs perception than the males. Table 6 shows the ranking of themes along gender lines. The relative positions of the themes are within one rank with the exception of theme H which the males ranked two positions higher than did the females.



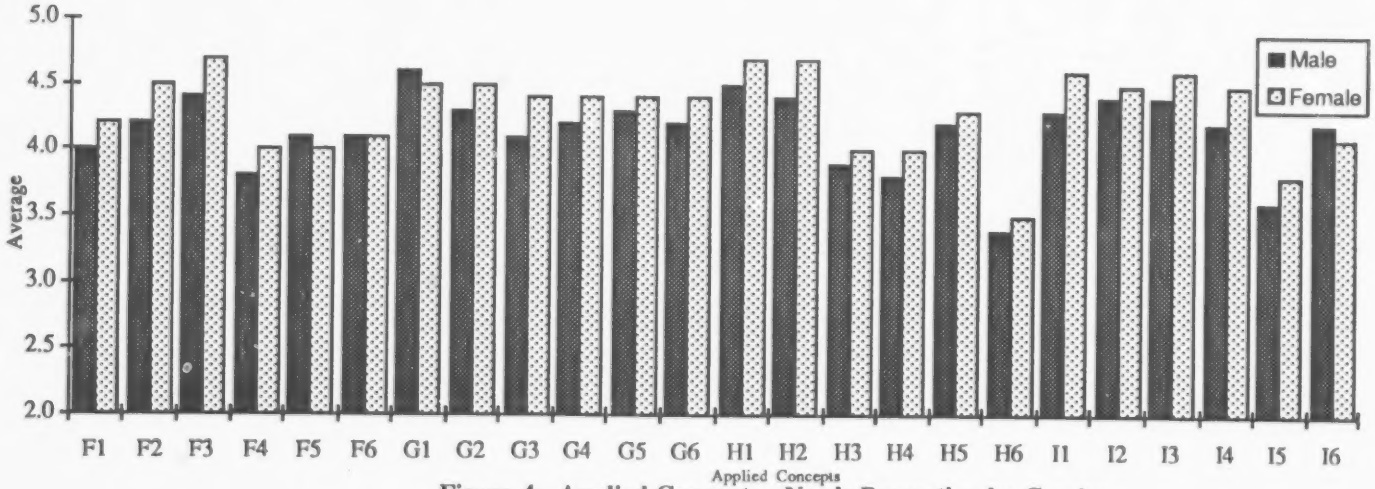


Figure 4: Applied Concepts: Needs Perception by Gender

Table 5

Theme Averages: Gender

Theme		Male Average	Female Average
A	Shared Meaning	24.5	25.8
B	Needs Fulfillment	25.6	25.9
C	Planning and Strategies	23.9	25.2
D	Processes	23.8	24.7
E	Structures	22.0	23.3
F	Learning	24.9	25.5
G	Leadership	25.7	26.2
H	Community Building	24.2	24.4
I	Resources	25.0	26.1

Table 6

Theme Ranking: Gender

Rank*	Males		Females	
1	G	Leadership	G	Leadership
2	B	Needs Fulfillment	I	Resources
3	I	Resources	B	Needs Fulfillment
4	F	Learning	A	Shared Meaning
5	A	Shared Meaning	F	Learning
6	H	Community Building	C	Planning and Strategies
7	C	Planning and Strategies	D	Processes
8	D	Processes	H	Community Building
9	E	Structures	E	Structures

*#1 is the highest perceived need

Figure 5 provides a clear picture of the relationship between respondents from for-profit and not-for-profit workplaces as compared to the public schools. Thirty-two applied concepts (59%), received a higher perceived needs value from principals. Seventeen

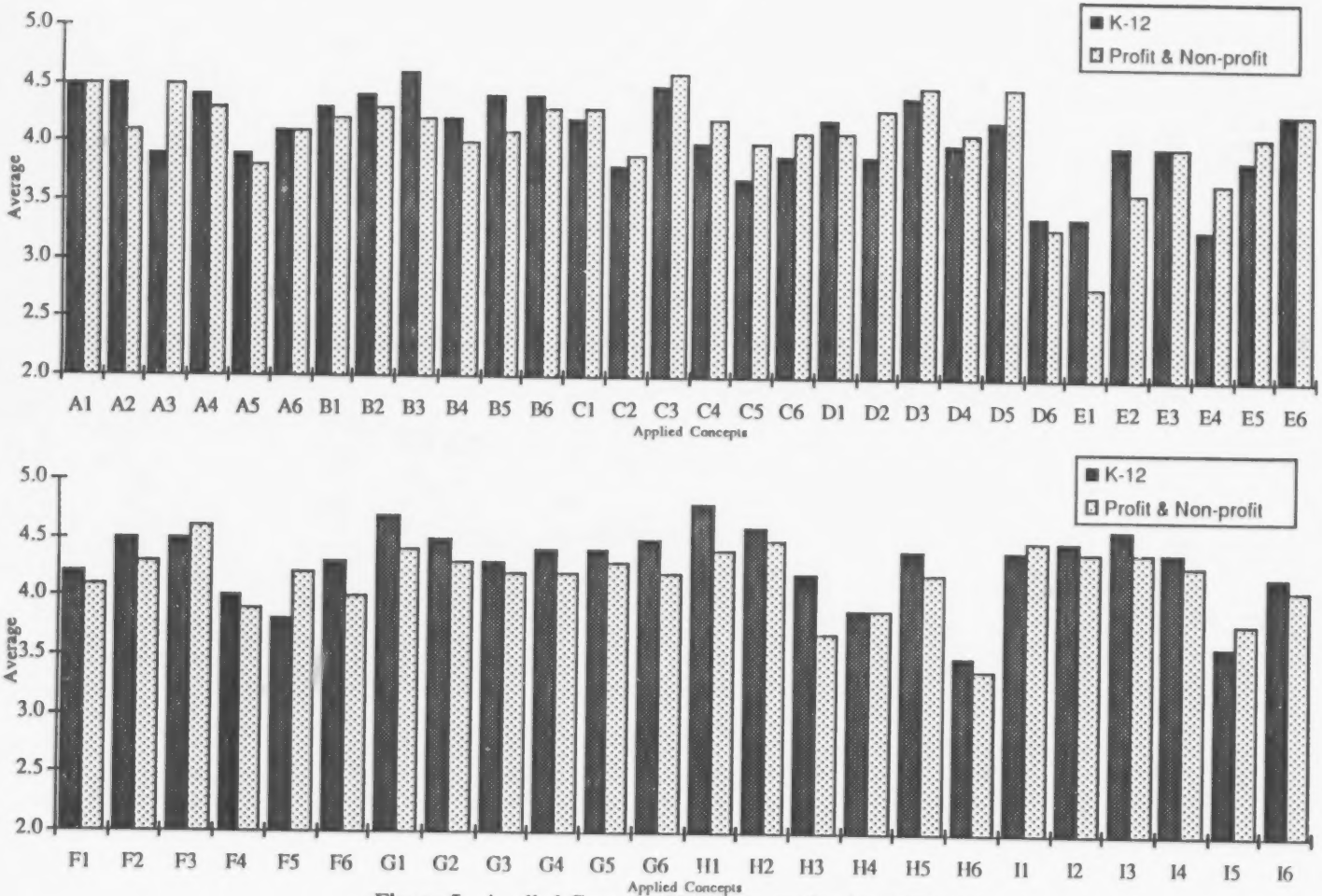


Figure 5: Applied Concepts Needs Perception by Workplace

applied concepts (32%), received a higher perceived needs value from for-profit and not-for-profit learning leaders. Five applied concepts (9%), received the same perceived needs value from both sectors. What is interesting in this case is the clustering around themes of the two groups. The principals were higher in almost all applied concepts in themes B, G, and H while the for-profit and not-for-profit learning leaders were higher in almost all applied concepts in theme C.

Table 7 shows that the greatest discrepancies between the two sub-groups exist in theme areas B, G, H, and C. In addition, Table 8 shows themes G and H to be ranked four positions higher by the principals than by the for-profit and not-for-profit learning leaders. Conversely, theme C is ranked five positions higher and theme F is ranked two positions higher by the for-profit and not-for-profit learning leaders.

Table 7

Theme Averages: Workplace

Theme		K-12 Average	Profit & Not-for-Profit Average
A	Shared Meaning	25.3	25.0
B	Needs Fulfillment	26.3	25.8
C	Planning and Strategies	23.6	25.3
D	Processes	24.0	24.4
E	Structures	22.9	22.4
F	Learning	25.1	25.3
G	Leadership	26.8	25.3
H	Community Building	25.4	23.4
I	Resources	25.6	25.5

Table 8

Theme Ranking: Workplace

Rank*		K-12		Profit & Not-for-Profit
1	G	Leadership	B	Needs Fulfillment
2	B	Needs Fulfillment	I	Resources
3	I	Resources	C	Planning and Strategies
4	H	Community Building	F	Learning
5	A	Shared Meaning	G	Leadership
6	F	Learning	A	Shared Meaning
7	D	Processes	D	Processes
8	C	Planning and Strategies	H	Community Building
9	E	Structures	E	Structures

*#1 is the highest perceived need

Translated into theme titles, this reflects a greater emphasis by school principals on leadership, needs fulfillment and community building and a greater emphasis by for-profit and not-for-profit learning leaders on planning and strategies. This could mean that the two sub-groups may have much to learn about themselves and about each other from this information. The relatively high perception of needs in certain areas may speak to the mental models in use by various sub-groups.

The age needs perception dispersion is displayed in Figure 6 with data averages for all three age sub-groups plotted for each applied concept. The lowest age sub-group returned the highest needs perception for 25 applied concepts (46%); the middle age sub-group returned the highest needs perception for one applied concept (2%); and the sub-group with the most senior participants returned

the highest needs perception for 20 applied concepts (37%). Those applied concepts for which two or three of the sub-groups returned the same needs perception were not included. For 40 applied concepts (74%), the middle age sub-group returned the lowest needs perception. These results show a fairly consistent trend whereby the lowest age sub-group and the most senior participants perceive the need for the applied concepts more so than the middle age sub-group.

Table 9 shows that the averages for themes A, B, C, and D follow the pattern of needs perception return in descending order from low to high to middle age sub-group. Themes E, G, and H merely reverse the order of the low and high age sub-groups so that the descending order of needs perception return is from high to low to middle age sub-group. For theme I the order is low to middle to high, indicating that the middle age sub-group returned a needs perception higher than did the oldest sub-group. Theme F was the only one that returned a needs perception for the middle group higher than both of the other two. Table 10 clearly demonstrates a difference in emphasis regarding themes by the middle age sub-group. Whereas the low and high age sub-groups selected themes A, B, and G as their top three in terms of needs perception, the middle age sub-group chose themes F and I first and then went with A, B, and G. This means that resources and learning are of greater importance to the middle age sub-group, although from there, they tend to agree with the cluster of three, common to all returns. The youngest sub-group placed resources fourth, but left learning in the second last spot. The

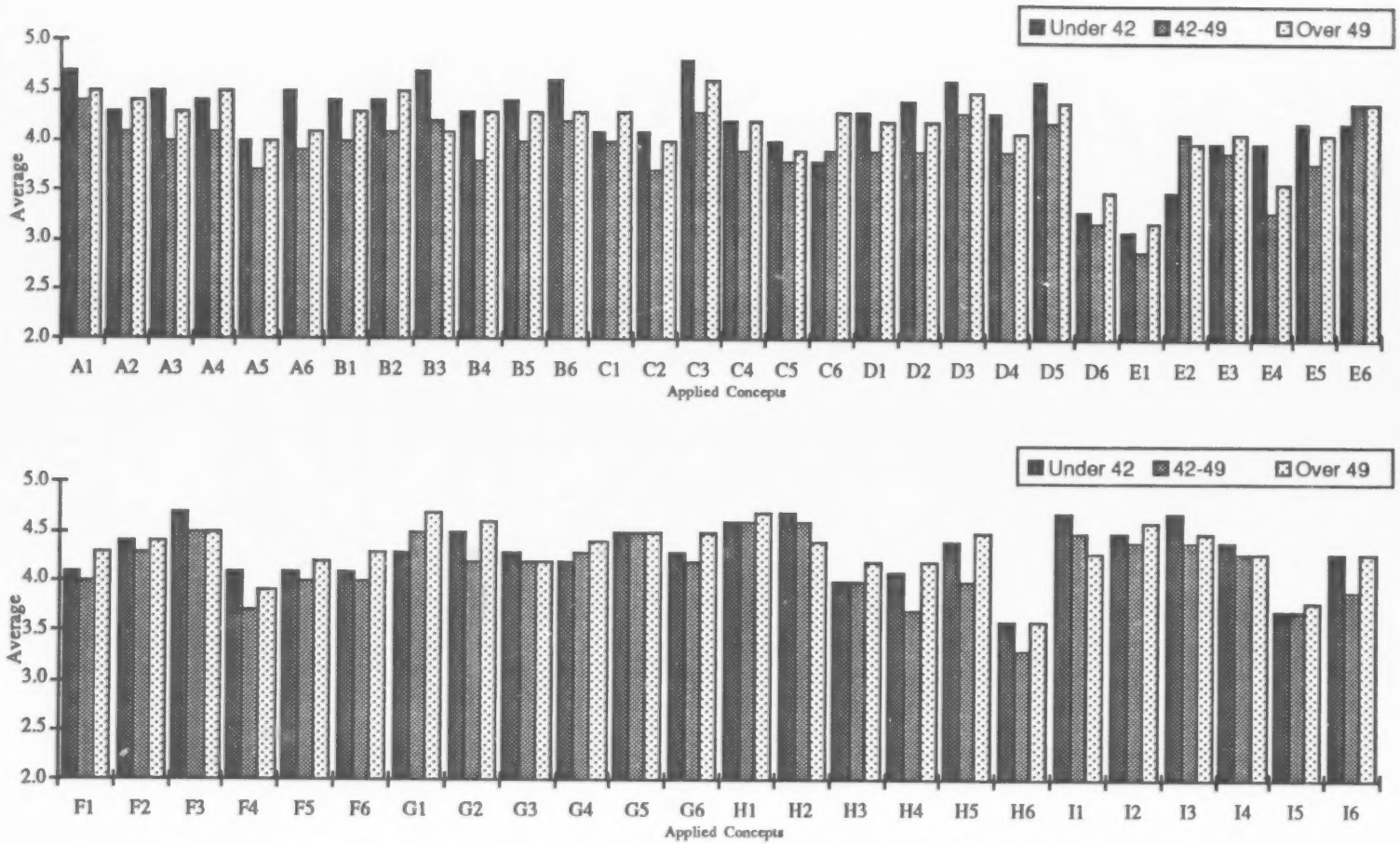


Figure 6: Applied Concepts Needs Perception by Age

highest age sub-group placed community building fourth and left learning and resources to the sixth and eighth places respectively.

Table 9

Theme Averages: Age

Theme		Under 42 Average	42 to 49 Average	Over 49 Average
A	Shared Meaning	26.2	24.2	25.8
B	Needs Fulfillment	26.7	24.6	26.3
C	Planning and Strategies	25.6	23.5	25.1
D	Processes	25.5	22.8	25.0
E	Structures	22.9	21.2	24.3
F	Learning	24.6	25.6	25.1
G	Leadership	26.1	25.0	27.0
H	Community Building	25.2	22.7	25.8
I	Resources	26.1	25.7	24.9

Table 10

Theme Ranking: Age

Rank*	Under 42 Average		42 to 49 Average		Over 49 Average	
1	B	Needs Fulfillment	I	Resources	B	Needs Fulfillment
2	A	Shared Meaning	F	Learning	G	Leadership
3	G	Leadership	G	Leadership	A	Shared Meaning
4	I	Resources	B	Needs Fulfillment	H	Community Building
5	C	Planning and Strategies	A	Shared Meaning	C	Planning and Strategies
6	D	Processes	C	Planning and Strategies	F	Learning
7	H	Community Building	D	Processes	D	Processes
8	F	Learning	H	Community Building	I	Resources
9	E	Structures	E	Structures	E	Structures

*#1 is the highest perceived need

State of Readiness

The state of readiness data provides a response to the final portion of Sub-Question #3: What differences exist in the responses of learning leaders to Sub-Questions #1 and #2(a) and (b), based on the perceived state of readiness of the workplace for implementing the needed applied concepts? For the state of readiness, the results are displayed in Figure 7. No consistent pattern is revealed among the plotted returns. Low, medium and high states of readiness sub-group needs perceptions are each shown for every applied concept. The combinations with respect to which sub-groups indicated which relative degree of needs perception are too numerous and varied to find any trends using visual inspection. However, an examination of the figures in Table 11, brings to light a consistent trend for six of the nine theme areas: A, B, C, D, E, and I. In each of these, the greater the perceived state of readiness, the greater the perceived need for the applied concepts to be implemented. Thus, learning leaders in organizations who perceive the organization to be in a high state of readiness for implementing a learning community, also see a high need for the applied concepts in this research. Conversely, learning leaders who perceive their organizations to be in a low state of readiness for becoming a learning community, do not perceive the need for implementing the applied concepts in this research to as great a degree.

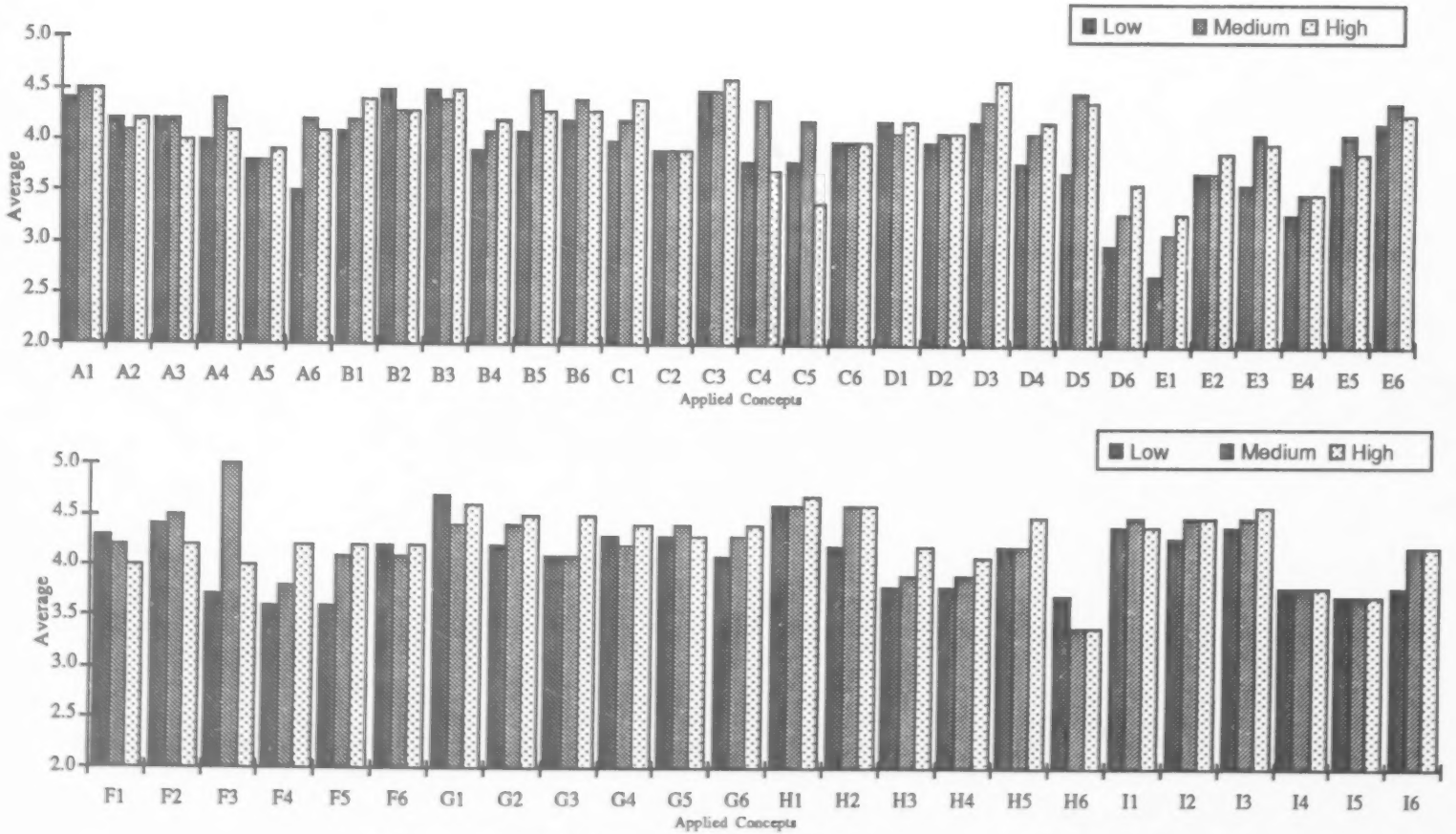


Figure 7: Applied Concepts Needs Perception by State of Readiness

Table 11

Theme Averages: Readiness

Theme		Low Average	Medium Average	High Average
A	Shared Meaning	24.2	25.0	25.7
B	Needs Fulfillment	25.2	25.6	25.1
C	Planning and Strategies	23.5	24.6	25.1
D	Processes	22.8	24.1	25.2
E	Structures	21.3	22.8	22.9
F	Learning	24.6	25.3	25.1
G	Leadership	25.5	26.7	24.7
H	Community Building	24.3	23.7	25.5
I	Resources	24.8	25.6	25.8

Table 12

Theme Ranking: Readiness

Rank*	Low		Medium		High	
1	G	Leadership	G	Leadership	B	Needs Fulfillment
2	B	Needs Fulfillment	B	Needs Fulfillment	I	Resources
3	I	Resources	I	Resources	A	Shared Meaning
4	F	Learning	F	Learning	H	Community Building
5	H	Community Building	A	Shared Meaning	D	Processes
6	A	Shared Meaning	C	Planning and Strategies	C	Planning and Strategies
7	C	Planning and Strategies	D	Processes	F	Learning
8	D	Processes	H	Community Building	G	Leadership
9	E	Structures	E	Structures	E	Structures

*#1 is the highest perceived need

With respect to the ranking of the themes based on perceived state of readiness, the low and medium sub-groups, differ noticeably

only with respect to the perceived need for the theme of community building. The low sub-group rated it three places higher. A much more profound difference exists between the highest readiness sub-group and the other two with respect to the themes of leadership and learning. Leadership is seven places lower and learning is three places lower for the high readiness sub-group.

Qualitative Contributions

While contacting potential participants for this study by telephone, the overwhelming majority expressed the concern that they may not be able to be involved in this research due to time pressures in the workplace. The potential participants making this claim attributed the time problem to have largely been brought about by workplace cutbacks and downsizing efforts. This no doubt affected the ability of the respondents to input suggestions for improving the applied concepts and adding to them. Despite that limiting factor, a number of general comments were made, and a total of thirty-one specific written modifications and additions were shared (see Appendix 4). Several people expressed delight and tremendous enthusiasm for the work. Included in their number were some who stated that all of the applied concepts were obvious and that follow-up work should begin immediately in the implementation arena. Conversely, several respondents indicated that they didn't understand some of the applied concepts. Almost all of these suggested simplifying the wording; one participant stated that it was the first survey that he had filled out among many that

had caused him to think and reflect on his own background on the statements involved. Another recommendation made regarding the methodology was to mix opposite statements into the instrument and tabulate results accordingly to see if there was any tendency by the participants to respond in one way because of the layout.

Enough input was received to warrant justifying further qualitative research on the applied concepts, but not nearly enough was received to validate changes to the existing statements.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study

This study was initiated for the purpose of determining what the applied concepts are that are needed to facilitate a learning community. Forming learning communities is of interest to many people in all types of organizations to assist in dealing with change, to enable higher functioning for survivability, to enhance their capacity to create their own future, to be better positioned to take advantage of new opportunities and to be able to solve problems more effectively. In order to accomplish the objective of the research, an in-depth examination was done of the literature on the subject of learning communities. The most consistent applied concepts were extracted and organized into theme areas. To establish which of the applied concepts were needed to facilitate a learning community, qualified learning leaders from organizations in the Edmonton, Alberta area were contacted to participate in the study. Those who agreed were sent a survey instrument containing demographic questions and the applied concepts extracted from the literature. Participants were asked to indicate whether they perceived a need to implement these applied concepts in their own workplace in order to form a learning community. This was done by marking on a Likert scale whether they *strongly agreed, agreed,* were *not sure, disagreed* or *strongly disagreed* with the need for

each applied concept. Ninety-four out of one hundred and twenty surveys were returned completed (78%). The results were tabulated for the applied concepts and themes and figures and tables were constructed to display the information.

Contributions and Limitations of the Research

Contributions

One of the contributions that the research has made to the study of learning communities is the analysis and synthesis of some four hundred items including over one hundred books, and several hundred documents in the form of articles, tapes and conference proceedings. The researcher also participated in experiential workshops and dialogue events held by interest groups and leading consultants. The materials spanned related fields as diverse as psychology, education, business, technology, sociology and spirituality. Once all of the sources had been examined, the selection of those in the bibliography for this work was made and the final extraction process was carried out as described in the methodology in Chapter Three. While no work of this kind is ever complete, the literature review traversed much of what is currently available in the way of insights and reports of experiences related to building and developing learning communities. As such, the scope of the thinking on learning communities is well represented in the research, which lends considerable weight to the applied concepts that emerged. Thus, although the research did not venture beyond descriptive statisitics, it is significant in its attempt to identify

applied concepts related to facilitating the building and development of learning communities.

Limitations

On the other hand, a number of limitations are also evident in the research. Further statistical analysis of the data collected could have provided greater insight to the descriptive statistics provided in Chapter Four. By running t-tests, or other appropriate statistical processes, the significance of trends (such as the middle age sub-group perceiving the least need among the age sub-groups for the applied concepts, or the female sub-group perceiving the greatest need between the gender sub-groups for the applied concepts), could have been further explored.

Examining the data on the workplaces of the research participants in terms of for-profit and not-for-profit workplaces, may have provided greater insight. By doing interviews of individuals, or using an expert panel in conjunction with the literature items selected for the final extraction of the applied concepts, the validity of the identified applied concepts could have been improved. The use of theme titles before the applied concept groupings in the instrument by the researcher could have resulted in bias in the grouping decisions made by the researcher. By surveying the participants with the applied concepts alone, this could have been avoided. Also, the applied concepts could have been placed in random order to ensure that no association could be drawn by the participants from the relative positions of the statements. Another deterrent to biasing could have been to include a number of

detractor statements among the applied concepts. Finally, by making the number of applied concepts from each theme that were to be surveyed representative of the number extracted from each theme, a more accurate applied concept listing could have been developed. This would have meant if theme A had twice the number of applied concepts extracted as theme C did, then the instrument would contain twice the number of applied concepts from theme A as from theme C.

An additional investigation in the form of a factor analysis could establish whether the responses on the part of the participants showed the same relationship or clustering among the applied concepts as the grouping under the themes did in the extraction process.

Summary of Findings and Conclusions

The following are the findings for this study drawn from the data collected and the calculations made. Conclusions are made for each based solely on what the findings indicate and are not intended as absolutes. The order of the findings and conclusions follows the research sub-questions from one through three.

(1) The findings for Sub-Question #1: Do learning leaders in Edmonton perceive the applied concepts extracted from the literature to be needed to facilitate a learning community in their workplace?; show that the majority of learning leaders in the Edmonton, Alberta area do perceive the need for the applied concepts extracted from the literature, to facilitate a learning

community in their organizations. This means that there is strong agreement for effecting change in the directions that the implementation of the applied concepts would bring about. The fact that this level of accord exists serves to answer the main question for this research. In as far as the scope, depth and methodology of the research permits, the applied concepts extracted from the literature can be said to be representative of what is needed to facilitate a learning community.

It is noted however, that 14 of the applied concepts had *not sure* responses in the returned instruments numbering over 15. This indicates that further clarification is needed in these areas and that either respondents did not understand the wording or did not have sufficient exposure to the concept to respond assertively.

(2) Regarding Sub-Question #2(a): Is there an order of priority among the applied concepts and Sub-Question #2(b): Is there an order of priority among the themes into which the applied concepts are grouped?; the answer is affirmative for both sub-questions. An order of priority does exist for the applied concepts. This offers some insight into which applied concepts may be considered for implementation ahead of others. The themes also had an order of priority but with very little difference in the emphasis placed on them. Theme G, leadership which placed first overall in ranking, has no applied concepts in the top five on the order of priority list for applied concepts. Applied concepts H1 and H2, which were selected as the two most important, are in a theme that was selected seventh overall. This indicates that the relationship among applied concepts

within a given theme may be lost among the participants. For example, A1 was the third highest priority applied concept. It deals with developing a culture of shared meaning. A6, the applied concept in position thirty, deals with helping individuals within organizations develop their personal meaning systems which are essential to developing shared meaning systems. Somehow totally different levels of priority are given. This could be simply because A6 is considered not needed. It could also be because the appreciation of its scope, potential and criticality may not be understood. Clearly, the respondents looked at the applied concepts as individual items as the instrument design requested, but the question arises as to whether respondents could have made the connection between applied concepts within each theme in a tacit manner. The results show no evidence of that kind of occurrence. Facilitators must look at this result very closely when determining whether to place an emphasis on certain applied concepts or themes for implementation. In some cases a combination of approaches may be considered.

(3) The demographic data provided responses to portions of Sub-Question #3: What differences exist in the responses of learning leaders to Sub-Questions #1 and #2(a) and (b), based on their gender, type of workplace and age? Female learning leaders consistently perceived a higher need for the applied concepts than did males. This finding was true for all themes and almost all applied concepts. In general, women, according to this result are more compatible with the directions in which the applied concepts take organizations. This

may be an important factor in decision making in organizations regarding the assignment of roles and the development of people.

Workplace differences manifested themselves along theme lines. Not-for-profit and for-profit learning leaders saw planning and strategies to be much more important than did principals. Principals, on the other hand placed a much higher emphasis on leadership and community building than did their counterparts. What is also noteworthy is that two of these themes, namely community building and planning and strategies were ranked sixth and seventh overall. This infers that the two types of workplace learning leaders have distinctly different needs perceptions. Such a result could be a reflection of the emphasis traditionally placed in the two types of workplaces. Workplace members would do well to consider these outcomes in deciding on which applied concepts to implement to facilitate a learning community dynamic. The reason for this is that it could be that while a public school system implements applied concepts relative to leadership because of the perception of need in that area; they might overlook planning and strategies to the point whereby problems begin to happen as a result of the neglect of that area. The same thinking holds for any workplace desirous of implementing those applied concepts that are ranked highest in terms of needs perception in that consideration should be given to what might be compromised or overlooked.

Learning leaders in the middle age category perceived the applied concepts to be needed to a lesser degree than did their younger and older colleagues. In general, the younger sub-group

perceived the highest need for the applied concepts, while the oldest sub-group was second. Regardless of the reasons behind this, the conclusion is that this lends itself to the possibility that the middle age sub-group is least likely to implement these applied concepts. Organizations must be aware of this reality and factor it into all facets of their functioning. The theme rankings show a much higher emphasis by the middle age sub-group than the other two on resources and learning. This could mean that this sub-group, being somewhat more seasoned than the younger ones, and having somewhat more at stake than the older ones, are reflecting a pragmatic view that without these items in place, the remainder of the themes would not be possible to implement. On the other hand, it could be that this perception indicates that the middle age sub-group would only proceed with any steps toward implementation of the applied concepts if allocations were made first. If the latter is true, then that thinking could be partly to blame for the lower needs perception overall.

(4) The final portion of Sub-Question #3: What differences exist in the responses of learning leaders to Sub-Questions #1 and #2(a) and (b), based on the perceived state of readiness of their workplace for implementing needed applied concepts?; has a consistent finding. The data on the perceived state of readiness of the organization for implementing the applied concepts when looked at in conjunction with the perceived need for the applied concepts, shows that the lower the perceived state of readiness of the organization, the lower the perceived need for the applied concepts. This is evidenced when

looking at the theme averages for readiness in Table 11. Those learning leaders who stated that their organizations were in a high state of readiness to implement the applied concepts also perceived a higher need to implement them and vice versa. Clearly, the greater the awareness and movement of an organization in the direction of becoming a learning community, the greater the perceived need to proceed further. Also, it could be that as some applied concepts are implemented, the need for others becomes increasingly apparent. This highlites the importance of establishing some direction and beginning the process towards implementation. As developments occur, they clear the way for further, more pronounced advances. Such a finding is very encouraging for organizations in all states of readiness.

Recommendations for Further Research

(1) A great deal more work must be done both in the area of making additions to the applied concepts and to validating further the existing applied concepts as a framework for facilitating learning communities. The research done in this study was a preliminary look at what the response might be of those people with the most expertise and influence in these areas in their workplaces. Follow up studies can take two general directions. The first would be to do more surveys, perhaps with fewer participants, but with those who have considerable depth of background on learning communities, and who are given more release time specifically to participate in the research. Providing them with preliminary overviews of the applied

concepts and themes for dialogue before surveying would be helpful. Also, taking the time to extract more qualitative data drawn from their combined experience would be extremely useful. Finally, having colleagues input together on each applied concept with respect to their workplace would add a dimension to the findings. Another approach that is essential to establishing whether the applied concepts hold, would be to locate interested organizations that would implement some of the applied concepts and allow observations to be made on the results.

(2) The results of the priority ranking of the applied concepts could be investigated further by using a variety of instruments with a cross section of organizational types. Such an undertaking could easily be done in conjunction with the studies recommended in #(1) above. Key points to determine would be the consistency of the order of priority and the reasons for the relative ranking of the applied concepts.

(3) The demographic trends and workplace readiness perception findings need to be tested to establish how consistent they are; what their effects are on the facilitation of learning communities; what the reasons might be behind them and whether they hold with other research in other disciplines i.e. gender issues; and finally, what steps need to be taken to leverage high points and bridge gaps.

Recommendations for Application

In its current form, the set of applied concepts may have limited practical value. However, if diagnostic tools were developed

with the applied concepts acting as a foundation, they could be used to assess the state of readiness of an organization for moving in the direction of becoming a learning community, or to troubleshoot areas of concern that might need attention. By scanning through an appropriate checklist or guide, possible areas for directing energies and resources may be discovered that might not have been considered otherwise. This could save time and money and ensure more lasting resolutions based on a comprehensive, system-wide approach. Similarly, implementation technologies can be designed and tested that integrate the applied concepts into organizations, moving them to greater and greater internalization of their application. Two examples of this include the future search conferences that are used for developing shared meaning and the community building workshops that are used for developing authentic communication and deep interpersonal relationships that reach into the emotional and spiritual planes. There is much room for the creation of new methodologies, the improvement of existing ones and the evolution of best ways to empower large numbers of people with the skills, knowledge and affects that are involved in employing the new and improved methodologies. In addition, the applied concepts can be used as a guide from which to draw ideas for continuous learning. Learning experiences to develop competencies in areas such as dialogue, exploration, research, experimentation and other activities can be prompted by referring to the list. Plans for learning programs within organizations can be directed by the

content of the statements. The outline for courses, workshops, seminars and role plays can be based on a selection of these items.

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APPENDIX 1

INITIAL TELEPHONE CONVERSATION GUIDE

The following text outlines the content to be used in the first telephone communication with the prospective research participants.

Hello, my name is Conrad Braun. I am currently engaged in a research study for a Master of Education thesis at the University of Alberta on the subject of the learning community. I received your name with permission (a) from the office of the Edmonton Public School Board, if addressing a principal; or (b) from the local learning organization interest group, if addressing a human resource management practitioner. If addressing a principal ask: Do you have any knowledge of the learning community dynamic? (If no, terminate the call. If yes, proceed.)

The purpose of my study is to determine what the applied concepts are that facilitate a learning community. Applied concepts are directive or prescriptive statements that articulate what could be done to induce and sustain a learning community. Through an extensive literature review, I have extracted the most frequently occurring applied concepts and organized them into nine theme areas, each containing six. Such a compilation could prove to be a very useful guide to any organization seeking to become a learning community. In order to determine which of these applied concepts are needed to facilitate a learning community, I have designed a research instrument in the form of a survey. All input received will be strictly confidential and participants as well as organizations with which they are affiliated will be protected from identification. Would you be interested in volunteering as a respondent for this study? (If no, terminate the call. If yes, proceed.)

You will receive a package in the mail within one week containing a cover letter and a copy of the instrument. All necessary instructions are included in the instrument. On the final page of the instrument, several resources on the learning community are listed. You will receive those which you check in the space provided, at the conclusion of this research project. If you have any questions, please do not hesitate to call me. Thank you for your support.

APPENDIX 2

RESEARCH INSTRUMENT COVER LETTER

Pursuant to our telephone conversation of __(date)__, please find enclosed a copy of the research instrument on the applied concepts of the learning community, and two self-addressed, stamped envelopes. One envelope is for the purpose of returning your completed Request for Further Information form, located on the last page of the instrument. It will indicate which items on the learning community you wish to receive at the conclusion of this study. The second envelope is for returning the completed survey. The results of a pilot study show that you will need about 30 minutes to respond to this instrument.

All data collected during this research will be destroyed once the results are summarized. You may withdraw from this study at any time.

The learning community, as an organizational dynamic, has the potential to become the means by which synergistic functioning can be realized in organizations. Furthermore, in the face of current day opportunities, challenges, conditions and contexts, the need is accelerating for a highly effective alternative to cope with change in today's organization. The applied concepts contained in this investigation are directive or prescriptive statements that articulate what could be done to induce and sustain a learning community. Your experience and expertise as a learning leader in your organization are important to the process of gaining insight into learning communities. The results of all of the contributions will be incorporated into a thesis for the partial fulfillment of the requirements for a Master of Education Degree.

All necessary instructions are included within the instrument sheets. Please return the completed form by __(date)__. If you have any questions, please call me at 481-3023. Thank you for agreeing to participate in this work.

Yours sincerely,

Conrad Braun
Graduate Student

CC: Prof. Art Deane
Enclosure

APPENDIX 3

RESEARCH SURVEY

RESEARCH SURVEY

APPLIED CONCEPTS FOR FACILITATING A LEARNING COMMUNITY

Part A: Demographics

Please fill in the blanks below as requested. This information will be used to describe the characteristics of the population sampled.

(1) Please indicate (check ✔) your gender: _____ female
_____ male

(2) Please state your age: _____ years.

(3) Please indicate your type of workplace setting:
(check only one): _____ k-12 public education system
_____ not for profit organization
_____ for profit organization

Part B: Need

Please indicate on the scale adjacent to each applied concept listed below, to what extent you believe the applied concept to be needed to facilitate a learning community in your workplace. The following designations apply: (SA)-Strongly Agree, (A)-Agree, (NS)-Not Sure, (D)-Disagree, (SD)-Strongly Disagree; i.e. a response of Strongly Agree, indicates a strong belief in the need for that applied concept to facilitate a learning community in your workplace. Please indicate your choice by circling the appropriate letters.

TO FACILITATE A LEARNING COMMUNITY IN MY WORKPLACE I PERCEIVE THE NEED TO:

Theme A- Shared Meaning

A-1 Develop a complex culture based on shared meaning that encompasses the following aligned elements: beliefs, values, vision, mission, core competencies and goals.

SD---D---NS---A---SA

A-2 Deepen, entrench and renew shared meaning consistently and continuously.

SD---D---NS---A---SA

A-3 Manage the chaos resulting from rapid change and the complexities of self-organization through the direction, identity and commitment generated by shared meaning.

SD---D---NS---A---SA

A-4 Establish a set of operating principles, guided by the shared meaning system, to act as the foundation for all decision making and actions.

SD---D---NS---A---SA

TO FACILITATE A LEARNING COMMUNITY IN MY WORKPLACE I PERCEIVE THE NEED TO:

A-5 Ensure that all contributions and concerns are processed in the engendering of shared meaning.

SD---D---NS---A---SA

A-6 Assist members in surfacing and articulating their personal meaning systems and integrating them into the shared meaning system.

SD---D---NS---A---SA

Theme B- Needs Fulfillment

B-1 Devise sensors and feedback channels to maintain an awareness of the personal needs of members for all developmental levels.

SD---D---NS---A---SA

B-2 Make ongoing provision for the basic physical necessities of members including health, safety and security.

SD---D---NS---A---SA

B-3 Provide required: support, feedback and acknowledgement; occasions for informal interaction; and opportunities for increased participation and responsibility.

SD---D---NS---A---SA

B-4 Match individual interests, aspirations and capacities closely and directly with organizational needs.

SD---D---NS---A---SA

B-5 Design roles to be fluid, challenging, relevant and fulfilling.

SD---D---NS---A---SA

B-6 Encourage indulgence in playfulness, humor, risk, experimentation, spontaneity and outbursts of interest and excitement.

SD---D---NS---A---SA

Theme C- Planning and Strategies

C-1 Ensure that all directives, functions and activities are cogenerated, modelled and supported by the top leadership.

SD---D---NS---A---SA

C-2 Implement all needed applied concepts in an optimally integrated and balanced manner.

SD---D---NS---A---SA

C-3 Provide the maximum possible access to information and mechanisms for creating and capturing knowledge throughout the organization.

SD---D---NS---A---SA

TO FACILITATE A LEARNING COMMUNITY N MY WORKPLACE I PERCEIVE THE NEED TO:

C-4 Utilize needs assessments, scenarios, simulations, benchmarking and stories of past successes and failures to generate proactive, flexible plans and strategies.

SD---D---NS---A---SA

C-5 Embed continuous and breakthrough improvement and innovation cycles within all facets of organizational functioning.

SD---D---NS---A---SA

C-6 Analyze systems interrelationships to determine the points where the least intervention can effect the optimum desired change.

SD---D---NS---A---SA

Theme D- Processes

D-1 Blend occasions for dealing with difficult issues, bridging differences and the rooting out of obstacles to learning into routine encounters.

SD---D---NS---A---SA

D-2 Surface and challenge assumptions, norms, perspectives and modes to prompt deep learning and renewal.

SD---D---NS---A---SA

D-3 Ensure sufficient contact among stakeholders to unearth concerns, share insights, identify future needs and devise solutions.

SD---D---NS---A---SA

D-4 Alter work methods to accelerate development cycles, streamline operability and synchronize with new technologies.

SD---D---NS---A---SA

D-5 Develop performance indicators to provide feedback on critical aspects of organizational functioning.

SD---D---NS---A---SA

D-6 Utilize guided and skilled competition and conflict, and action learning technologies in conjunction with parallel teams to generate arrays of creative alternatives for problem solving.

SD---D---NS---A---SA

Theme E- Structures

E-1 Employ hierarchical structures for routine, low impact operations and horizontal structures for critical, high priority decision making and functioning.

SD---D---NS---A---SA

E-2 Inaugurate flexible teams as the primary organizational forms for both protracted assignments and short term projects.

SD---D---NS---A---SA

TO FACILITATE A LEARNING COMMUNITY IN MY WORKPLACE I PERCEIVE THE NEED TO:

E-3 Ensure that teams have adequate cross-level, cross-discipline, interdepartmental and interorganizational representation for effectual fulfillment of their objectives.

SD---D---NS---A---SA

E-4 Tie all necessary external rewards by way of remuneration, acknowledgements and challenges to demonstrated self-organizing capability, competency development and productive contributions made at the personal, team and organizational levels.

SD---D---NS---A---SA

E-5 Forge flexible role descriptions, outlining a range of expectations and accountabilities and detailing the contextual frameworks within which the activities are to be concentrated.

SD---D---NS---A---SA

E-6 Build required support services into each unit or team or make them readily accessible across boundaries.

SD---D---NS---A---SA

Theme F- Learning

F-1 Expand self-organized learning capabilities in formal, informal, incidental and generative learning contexts at the personal, team, organizational and interorganizational levels.

SD---D---NS---A---SA

F-2 Grow in the ability to determine learning needs, set goals, design experiences, apply learnings and measure and assess impacts.

SD---D---NS---A---SA

F-3 Deepen skills in critical and creative thinking, problem solving, inquiry, reflection, listening, communication and group interaction.

SD---D---NS---A---SA

F-4 Make learning opportunities available in personal visioning, group process, surfacing assumptions, psychospiritual development, and principle centeredness.

SD---D---NS---A---SA

F-5 Balance long term theoretical and competency building learning with just-in-time, just-enough, in context, directly applicable learning experiences.

SD---D---NS---A---SA

F-6 Provide for ongoing development in higher order thinking, metacognition and collaborative learning in a way that addresses individual learning styles, strategies, affinities and intelligences.

SD---D---NS---A---SA

TO FACILITATE A LEARNING COMMUNITY IN MY WORKPLACE I PERCEIVE THE NEED TO:

Theme G- Leadership

G-1 Model and coach continuous growth in learning and functioning at all levels and in all spheres of living.

SD---D---NS---A---SA

G-2 Facilitate the creation of settings, conditions and dynamics conducive to learning community development and sustainability.

SD---D---NS---A---SA

G-3 Expand participative decision making and shared leadership, matching member competencies to task and process requirements.

SD---D---NS---A---SA

G-4 Assist in the acquisition of learning resources and the design and delivery of learning experiences.

SD---D---NS---A---SA

G-5 Cultivate the acquisition, creation and internalization of new knowledge.

SD---D---NS---A---SA

G-6 Ensure fair and equitable selection practices, assignment distributions, group compositions and compensation schedules.

SD---D---NS---A---SA

Theme H- Community Building

H-1 Relate with respect, caring, compassion, honesty, integrity and forgiveness.

SD---D---NS---A---SA

H-2 Communicate clearly, simply, frequently and authentically, balancing dialogue and discussion and transcending roles, policies and status.

SD---D---NS---A---SA

H-3 Provide means by which members can comfortably grow in self-awareness, surface personal areas of brokenness and vulnerability and move closer through healing to wholeness.

SD---D---NS---A---SA

H-4 Grow in the tolerance of ambiguity, the balancing of task and bottom line with process and functioning from emptiness of obstacles to learning.

SD---D---NS---A---SA

H-5 Surface and deal with difficult and painful issues and reconcile differences with integrity.

SD---D---NS---A---SA

TO FACILITATE A LEARNING COMMUNITY IN MY WORKPLACE I PERCEIVE THE NEED TO:

H-6 Invite consciously motivated, ethical submission to a Higher Power and commitment to the betterment of the human condition.

SD---D---NS---A---SA

Theme I- Resources

I-1 Optimize the use of time when scheduling individual, team, organizational and network activities for the meeting of objectives.

SD---D---NS---A---SA

I-2 Allocate budgets for human and material resources; balancing risks with potential returns, long and short term cycles, needs with wants and quality with efficacy.

SD---D---NS---A---SA

I-3 Ensure that work and learning locations and layouts are safe, secure, healthy, comfortable and stimulating.

SD---D---NS---A---SA

I-4 Make diverse coaching, mentoring, counselling and therapy services available and accessible through both direct and discreet means.

SD---D---NS---A---SA

I-5 Screen resources, products, processes and waste through ecological filters.

SD---D---NS---A---SA

I-6 Provide optimal technologies for working and learning including hardware and integrative software for multimedia, expert systems, communications, simulations, modeling, automation, process control and data acquisition, processing and management.

SD---D---NS---A---SA

Part C: Readiness Perception

Please indicate on the scale below to what extent you perceive your workplace community to be ready to implement the needed applied concepts. Position #1 on the scale indicates an extremely low state of readiness for implementation, while position #6 on the scale indicates an extremely high state of readiness for implementation.

1---2---3---4---5---6

Part D: Modifications and Additions

Please write down any modifications you wish to see made to the applied concepts in Part A. Also, if there are any applied concepts that you believe should be added, input them in the space provided. If more space is required, please use the back of this sheet or enclose additional pages. All contributions will be processed.

Applied Concept Number	Revision or Addition
_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____
	_____

Thank you for your participation in this research project. Please return the completed survey in the envelope provided to: Mr. Conrad Braun, 18619 92 Ave., Edmonton, Alberta, T5T 1P3. This instrument will not be referenced in any way to any participant or to any organization with which participants are affiliated.

REQUEST FOR FURTHER INFORMATION

Please indicate which of the following items you wish to receive upon completion of this thesis research:

(1) bibliography of learning community resources _____

(2) a copy of the summarized results of this study _____

(3) information on interest groups and workshops _____

Complete the following section and enclose this form in the envelope provided to Conrad Braun 18619 92 Ave., Edmonton, Alberta, T5T 1P3.

Name _____

Mailing Address _____

_____

_____

_____

For any further inquiries regarding learning community resources, I may be reached at 481 3023 or cbraun@ccinet.ab.ca.

APPENDIX 4

MODIFICATIONS AND ADDITIONS

MODIFICATIONS AND ADDITIONS

The following statements represent the qualitative contributions made by the participants. All written suggestions have been listed in order of applied concept designation from A1 to I6 with additional ideas for applied concepts at the end.

A1 - the culture should be simple
- culture yes, complex culture no
- remove the word "complex"

A5 - there are exceptions which must sometimes be handled from the human side of thought

A6 - I believe we must respect and encourage individuals within the confines of the group culture
- when and where appropriate

B2 - remove security- it is impractical in today's economic reality

B4 - personal growth can arise from extending these boundaries

B6 - extremely important concept

C1 - walk the talk

C2 - equal/ fair- not always the same
- there is a need to work on a broken front

C3 - must observe professional ethics and need for trust and confidentiality within the organization

C5 - there is a need to work on a broken front

D6 - often difficult for all stakeholders to view such action positively-must build trust first

- creative alternatives can be encouraged without a sense of competition or conflict

E1 - leadership must be strong- for many decisions input must not be confused with ultimate power

E3 - also suggest for key teams/projects that a senior manager be nominated to act as mentor/resource/champion/link
- add the inclusion of external resources on a project as a virtual organization

E4 - not remuneration- at first the teams/groups will be contributing time and effort over and above their normal work

F3 - vital
- this should initially be a part of team development, not a separate learning activity

F4 - can this be accomplished within the operational confines of the group culture?
- knowledge of these elements and applications are very personal
- not for everyone

F6 - in the longer term- too soon in Canadian culture will put people off

G2 - assumes competency

G3 - slowly- over longer term

G5 - cultivate the ability to acquire, create and internalize new knowledge

H1 - high emphasis should be on this statement

H3 - some learning is destructive when it affects human minds, particularly when it involves human potential and self-improvement
- remove the phrase on healing
- this depends on the degree of fixing brokenness- this often takes years and years- not realistic in all cases
- delete as this is too risky in our current culture

H4 - change the word tolerance to acceptance

H6 - in the very long term
- delete as this is too risky in our current culture

I3 - not likely in manufacturing corporations

I5 - everyone is responsible

I6 - within the confines of taxed budgets

Additional - encourage the use of outside resources to meet our needs
- develop an understanding of the needs of other institutions and work with them
- ensure that the individual is also responsible for putting the applied concepts in place
- support the development of wisdom

APPENDIX 5

PRIMARY SOURCES FOR APPLIED CONCEPTS

PRIMARY SOURCES FOR APPLIED CONCEPTS

A1 Develop a complex culture based on shared meaning that encompasses the following aligned elements: beliefs, values, vision, mission, core competencies and goals. Senge, P. (1990).

A2 Deepen, entrench and renew shared meaning consistently and continuously. Leibig, J. (1994).

A3 Manage the chaos resulting from rapid change and the complexities of self-organization through the direction, identity and commitment generated by shared meaning. Wheatley, M. (1992).

A4 Establish a set of operating principles, guided by the shared meaning system, to act as the foundation for all decision making and actions. Senge, P. (1990).

A5 Ensure that all contributions and concerns are processed in the engendering of shared meaning. Weisbord, M. (1992).

A6 Assist members in surfacing and articulating their personal meaning systems and integrating them into the shared meaning system. (Harri-Augstein, S., & Thomas, L. (1991).

B1 Devise sensors and feedback channels to maintain an awareness of the personal needs of members for all developmental levels. Kuczmarski, S., & Kuczmarski, T. (1995).

B2 Make ongoing provision for the basic physical necessities of members including health, safety and security. Glasser, W. (1984).

B3 Provide required: support, feedback and acknowledgement; occasions for informal interaction; and opportunities for increased participation and responsibility. Costa, A., & Garmston, R. (1994).

B4 Match individual interests, aspirations and capacities closely and directly with organizational needs. Walton, M. (1986).

B5 Design roles to be fluid, challenging, relevant and fulfilling. Glasser, W. (1984).

B6 Encourage indulgence in playfulness, humor, risk, experimentation, spontaneity and outbursts of interest and excitement. Peters, T. (1992).

C1 Ensure that all directives, functions and activities are cogenerated, modelled and supported by the top leadership. Block, P. (1993).

C2 Implement all needed applied concepts in an optimally integrated and balanced manner. Peck, S. (1987).

C3 Provide the maximum possible access to information and mechanisms for creating and capturing knowledge throughout the organization. Nonaka, I., & Takenchi, H. (1995).

C4 Utilize needs assessments, scenarios, simulations, benchmarking and stories of past successes and failures to generate proactive, flexible plans and strategies. Wack, P. (1985a).

C5 Embed continuous and breakthrough improvement and innovation cycles within all facets of organizational functioning. Kim, D. (1992).

C6 Analyze systems interrelationships to determine the points where the least intervention can effect the optimum desired change. Senge, P. (1992).

D1 Blend occasions for dealing with difficult issues, bridging differences and the rooting out of obstacles to learning into routine encounters. Argyris, C. (1992).

D2 Surface and challenge assumptions, norms, perspectives and modes to prompt deep learning and renewal. Argyris, C. (1990).

D3 Ensure sufficient contact among stakeholders to unearth concerns, share insights, identify future needs and devise solutions. Watkins, K., & Marsick, V. (1993).

D4 Alter work methods to accelerate development cycles, streamline operability and synchronize with new technologies. McKee, D. (1992).

D5 Develop performance indicators to provide feedback on critical aspects of organizational functioning. Gordon, J. (1992).

D6 Utilize guided and skilled competition and conflict, and action learning technologies in conjunction with parallel teams to generate arrays of creative alternatives for problem solving. Watkins, K., & Brooks, A. (1994).

E1 Employ hierarchical structures for routine, low impact operations and horizontal structures for critical, high priority decision making and functioning. The High Success Network. (1993).

E2 Inaugurate flexible teams as the primary organizational forms for both protracted assignments and short term projects. Nirenberg, J. (1993).

E3 Ensure that teams have adequate cross-level, cross-discipline, interdepartmental and interorganizational representation for effectual fulfillment of their objectives. Nonaka, I, & Takenchi, H. (1995).

E4 Tie all necessary external rewards by way of remuneration, acknowledgements and challenges to demonstrated self-organizing capability, competency development and productive contributions made at the personal, team and organizational levels. Pinchot, E., & Pinchot, G. (1993).

E5 Forge flexible role descriptions, outlining a range of expectations and accountabilities and detailing the contextual frameworks within which the activities are to be concentrated. Brinkerhoff, R., & Gill, S. (1994).

E6 Build required support services into each unit or team or make them readily accessible across boundaries. Nonaka, I., & Takenchi, H. (1995).

F1 Expand self-organized learning capabilities in formal, informal, incidental and generative learning contexts at the personal,

team, organizational and interorganizational levels. Dixon, N. (1990).

F2 Grow in the ability to determine learning needs, set goals, design experiences, apply learnings and measure and assess impacts. Harri-Augstein, S., & Thomas, L. (1991).

F3 Deepen skills in critical and creative thinking, problem solving, inquiry, reflection, listening, communication and group interaction. Huber, G. (1991).

F4 Make learning opportunities available in personal visioning, group process, surfacing assumptions, psychospiritual development, and principle centeredness. Peck, S. (1994).

F5 Balance long term theoretical and competency building learning with just-in-time, just-enough, in context, directly applicable learning experiences. Brinkerhoff, R., & Gill, S. (1994).

F6 Provide for ongoing development in higher order thinking, metacognition and collaborative learning in a way that addresses individual learning styles, strategies, affinities and intelligences. Costa, A., Bellanca, J., & Fogarty, R. (Eds.) (1992).

G1 Model and coach continuous growth in learning and functioning at all levels and in all spheres of living. Mumford, A. (1993).

G2 Facilitate the creation of settings, conditions and dynamics conducive to learning community development and sustainability. Senge, P. (1993).

G3 Expand participative decision making and shared leadership, matching member competencies to task and process requirements. Block, P. (1993).

G4 Assist in the acquisition of learning resources and the design and delivery of learning experiences. Harold, L. (1991).

G5 Cultivate the acquisition, creation and internalization of new knowledge. Nonaka, I., Takenchi, H. (1995).

G6 Ensure fair and equitable selection practices, assignment distributions, group compositions and compensation schedules. Nirenberg, J. (1993).

H1 Relate with respect, caring, compassion, honesty, integrity and forgiveness. Peck, S. (1993).

H2 Communicate clearly, simply, frequently and authentically, balancing dialogue and discussion and transcending roles, policies and status. Isages, W. (1993).

H3 Provide means by which members can comfortably grow in self-awareness, surface personal areas of brokenness and vulnerability and move closer through healing to wholeness. Peck, S. (1993).

H4 Grow in the tolerance of ambiguity, the balancing of task and bottom line with process and functioning from emptiness of obstacles to learning. Argyris, C. (1993).

H5 Surface and deal with difficult and painful issues and reconcile differences with integrity. Peck, S. (1993).

H6 Invite consciously motivated, ethical submission to a Higher Power and commitment to the betterment of the human condition. Hawkins, P. (1991).

I1 Optimize the use of time when scheduling individual, team, organizational and network activities for the meeting of objectives. Watkins, K., & Marsick, V. (1993).

I2 Allocate budgets for human and material resources; balancing risks with potential returns, long and short term cycles, needs with wants and quality with efficacy. Shaw, R., Perkins, D. (1991).

I3 Ensure that work and learning locations and layouts are safe, secure, healthy, comfortable and stimulating. Glasser, W. (1984).

I4 Make diverse coaching, mentoring, counselling and therapy services available and accessible through both direct and discreet means. Costa, A., & Garmston, R. (1994).

I5 Screen resources, products, processes and waste through ecological filters. Hawken, P. (1993).

I6 Provide optimal technologies for working and learning including hardware and integrative software for multimedia; expert systems; communications; simulations; modeling; automation; process control; and data acquisition, processing and management. Rao, M., & Wang, Q. (1995).